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Journal of the Society of Arts.

FRIDAY, MARCH 14, 1862.

NOTICE TO MEMBERS.

The Council have received the following Requisition, duly signed in accordance with the Bye-laws:—

TO THE COUNCIL OF THE SOCIETY OF ARTS.

We, the undersigned, Members of the Society for the Encouragement of Arts, Manufactures, and Commerce, request you to call a General Meeting of the Members on an early day, for the purpose of recording their sense of the loss of their President, the late Prince Consort, and of considering the propriety of having a Memorial of His late Royal Highness in the Society's House:—And further, if the latter proposition be then agreed to, of appointing a Committee to decide on the most appropriate form of the Memorial, with full power to take such steps as they may think necessary for carrying out the same.

Dated this 26th day of February, 1862.

In compliance with the foregoing requisition, the Council hereby convene a General Meeting of the Members of this Society, to be held on Friday, the 21st day of March instant, at four o'clock, p.m.

By order of the Committee,
P. LE NEVE FOSTER,
Secretary.

Society's House, Adelphi, W.C., 13th March, 1862.

INTERNATIONAL EXHIBITION OF 1862.—SEASON TICKETS.

Members of the Society and others are informed that Season Tickets may be obtained at the Society's house on application to Mr. S. T. Davenport, the financial officer. Price three guineas and five guineas, the latter also admitting to the Horticultural Gardens and *fetes* during the season.

It is understood to be in contemplation to appropriate to those who take Season Tickets at an early date a certain number of reserved seats for the Opening Ceremonial on the 1st of May.

INTERNATIONAL EXHIBITION OF 1862.—GUARANTEE.

The Council beg to announce that the Guarantee Deed is now lying at the Society's House for signature, and they will be much obliged if those gentlemen who have given in their names as Guarantors, as well as others interested in the Exhibition, will make it convenient to call there and attach their signatures to the Document. Signatures for sums amounting in the aggregate to £446,700, have been attached to the Deed.

WEEKLY PROGRESS OF THE INTERNATIONAL EXHIBITION.

The high winds which have prevailed during the past week have caused considerable damage to the domes. Before the putty in which the sheets of glass were imbedded had set, the wind lifted many of them off, and threw them with great force on the building below, thus injuring also the roofing of the courts and of the picture galleries. These sheets of glass it is a matter of some difficulty to replace, as the scaffolding in the interior of the eastern dome has been, to a great extent, removed, but a plan has been invented of obtaining access to any part of the inside of the dome without danger to the workmen. The travelling scaffold is being taken to pieces, and as soon as that is accomplished a clear view will be obtained from end to end of the nave for the first time. The main building may now be said to be floored entirely, a path only being left for waggons with foreign goods to bring their contents to the western side.

Notwithstanding the immense speed with which the decoration is being pushed forward, much remains to be done; anyone, however, who has watched the rate at which Mr. Crace advances, will not despair of its completion at an early period. All the northern courts are as yet untouched, and the colouring of the columns in the nave and transepts below the gallery line has only just commenced. The large picture galleries, however, on the English side, are quite finished, and those belonging to the Foreign department very nearly so.

The western annexe shows some signs of recovery from the confusion which was noticed last week; the steam-pipes are all laid, and the pillars for the shafting nearly all erected. A large quantity of machinery, especially from abroad, has arrived, though as yet none is fitted. The boiler-house is advancing as rapidly as possible; all six boilers are on the spot, and three are already fixed in their places. The eastern portion of the other annexe is being floored very quickly, and it is now accessible by the tunnel which runs under the entrance to the Horticultural Garden.

Since the notice in last week's *Journal*, goods have been coming in very fast. From Brazil, 48 cases have been received; from Belgium, 10; from Russia, 55; and from the Zollverein, 721. Of pictures, 1 has come from Russia, 2 from Denmark, 3 from Norway, and 2 from Switzerland. The French, with the exception of two fittings, make no show in goods received, but they are busy making very great preparations for their display. Having received from Her Majesty's Commissioners a "carte blanche," to deal with their space as they thought fit, they have raised walls so as to enclose their court entirely from floor to roof. This has the effect, not

only of cutting the building in two, but also, as the French Commission will find to their serious loss, of impeding ventilation. In consequence, too, of the means of ingress and egress not being sufficient, an obstacle is offered to free circulation.

English exhibitors are also now beginning to make a show. Ten cases of encaustic tiles have come from Messrs. Maw, of Broseley, in Shropshire; Lady Mitchell has sent two Chinese screens, a portion of the loot of the Summer Palace; Messrs. Purdie, of Oxford-street, are busy on a piece of ceiling decoration, and several cases of pottery have come from Edinburgh. In the nave and transepts some of the trophies to be erected have been commenced. Mr. Skidmore, of Coventry, has erected a great portion of his screen, and Messrs. Naylor and Vickers, of Sheffield, and the Coalbrookdale Company, are laying foundations for their bulky exhibits. In the nave Mr. Wilkins has raised the mast of a light ship.

MOSAIC WALL PICTURES FOR DECORATING THE BUILDINGS ERECTED FOR INTERNATIONAL EXHIBITIONS.

It is proposed to raise sufficient funds to execute two large Mosaic Pictures, 23 feet high by 13 feet wide, as experiments for decorating the panels of the outside walls of the permanent Picture Galleries for International Exhibitions in Cromwell-road, South Kensington. The Mosaics will be made of pottery, in geometric forms, by the pressure of dry powder. Various experiments in laying the Mosaics have been made by Messrs. Minton (Stoke-upon-Trent) with Mosaics of their own manufacture, and by Messrs. W. B. Simpson and Sons, of 456, West Strand, with Mosaics manufactured by Messrs. Maw. The experiments are very promising; and they prove that Mosaic pictures may be as easily worked and used in England as in Ancient Greece and Rome, or Mediæval Italy. They will be as imperishable as the hardest and most perfect Terra-cottas. They will create a new branch of industry, which may be worked in any locality, and, probably, by women as well as men.

The designs will illustrate Industry, Science, and Art. Some Cartoons have been already prepared by Mr. Cope, R.A., Mr. J. C. Hook, R.A., Mr. Godfrey Sykes, and Mr. Townroe; two of these will be executed in Mosaics as soon as the funds are provided.

The ornamental borders will be designed and the Mosaics worked out under the superintendence of Mr. Godfrey Sykes and his assistants.

When two panels have been done, and all the necessary arrangements have been made, after the close of the Exhibition of 1862, for filling the others, designs from other subjects will be sought from the artists named below.

The following are the principal subjects which,

at present, it is proposed should be executed, and the Artists named are those who have already kindly consented to undertake to make designs for them, when the proper period arrives.

I. SUBJECTS ILLUSTRATING THE PRODUCTION OF RAW MATERIALS.

1. Agriculture, Holman Hunt; 2. Chemistry, W. Cave Thomas; 3. Fishing, J. C. Hook, R.A.; 4. Hunting, Frederick Leighton; 5. Metallurgy, Eyre Crowe; 6. Mining, F. Barwell; 7. Planting, &c., Michael Mulready; 8. Quarrying, G. F. Watts; 9. Sheep Shearing, C. W. Cope, R.A.; 10. Vintage, F. R. Pickersgill, R.A.

II. SUBJECTS ILLUSTRATING MACHINERY.

3. Astronomy, S. Hart, R.A.; 2. Engineering, (reserved); 3. Horology, (reserved); 4. Mechanics, (reserved); 5. Navigation, J. E. Millais, A.R.A.; 6. Railways, R. Townroe.

III. SUBJECTS ILLUSTRATING MANUFACTURES AND HAND LABOUR.

1. Bricklaying, D. Maclise, R.A.; 2. Carpentry, R. Burchett; 3. China Painting, H. A. Bowler; 4. Glass Blowing, (reserved); 5. Iron Forging, Godfrey Sykes; 6. Jewellery, D. G. Rossetti; 7. Lace Making, R. Redgrave, R.A.; 8. Metal Casting, A. Elmore, R.A.; 9. Printing, R. Redgrave, R.A.; 10. Straw Plaiting, C. W. Cope, R.A.; 11. Weaving, Octavius Hudson; 12. Pottery, Godfrey Sykes.

IV. SUBJECTS ILLUSTRATING FINE ARTS.

1. Architecture, W. Mulready, R.A.; 2. Painting, W. Mulready, R.A.; 3. Sculpture, W. Mulready, R.A.; 4. Music, J. C. Horsley, A.R.A.

The designs before they are executed will be approved by a Committee of the Artists.

The Marquis of Salisbury, K.G., Mr. Layard, M.P., and Mr. Cole, C.B., act as a Committee of Management for carrying out the experiments, and all communications should be addressed to G. F. Duncombe, Esq., Secretary, South Kensington Museum, London, W.

SUBSCRIPTIONS PROMISED.

	£	s.		£	s.
The Society of Arts	105	0	Capt. Harris, E.I.S.	1	1
The Earl Granville, K.G., Lord President of the Council and Chairman of H.M. Commissioners for the Exhibition of 1862	10	10	G. Gilbert Scott, Esq., R.A., Architect to the Dean and Chapter of Westminster	3	3
The Marquess of Salisbury, K.G.	10	0	H. T. Hope, Esq.	10	0
Capt. Fowke, R.E.	10	10	John Kelk, Esq.	10	10
H. Cole, Esq., C.B.	10	10	The Lord Henry G. Lennox, M.P.	1	1
R. Redgrave, Esq., R.A.	5	5	Right Hon. R. Lowe, M.P.	1	1
Sir C. Eastlake, President of the Royal Academy	5	0	C. D. Fortnum, Esq.	1	1
Sir H. James, R.E.	1	1	J. Hubert (Messrs. J. Woollams, & Co.)	5	0
Peter Graham, Esq.	10	0	S. Addington, Esq.	5	5
J. F. Iselin, M.A.	1	1	C. A. Cole, Esq.	1	1
H. Johnson, Esq., 39, Crutched Friars	10	10	J. C. Macdonald, Esq.	1	1
Capt. Donnelly, R.E.	1	1	W. Wilson Saunders, Esq.	5	0
E. Stanley Poole, Esq.	1	1	M. Digby Wyatt, Esq., M.I.B.A.	1	1
Capt. Phillpots, R.E.	1	1	Sir Rodk. I. Murchison, G.C.S.S., Director of the Geological Survey	10	0
G. C. T. Bartley, Esq.	1	1	R. Fisher, Esq.	1	1
E. A. Bowring, Esq., C.B.	1	1	Coalbrookdale Iron Company	10	10
Sydney Smirke, R.A., Professor of Architecture in the Royal Academy	3	3	J. Webb, Esq.	5	0
			A. Barker, Esq.	5	0
			Sir S. M. Peto, M.P.	10	10
			Charles Lucas, Esq.	10	10

£	s.	£	s.		
Thomas Lucas, Esq.	10 10	T. Twining, Esq....	1 1	Sewell, Charles Brodie,	75, Guildford-street, Russell-square, W.C.
D. Roberts, Esq. R.A.	1 1	F. C. Penrose, Esq.,		M.D.	13, Clifford's-inn, E.C.
Jas. Heywood, Esq..	5 0	Architect to the		Summerlin, Thos. Hopkins	Kinburn-house, Lower Tulse-hill, S.
J. G. Frith, Esq.	5 0	Dean and Chapter		Thompson, James	137, Fenchurch-street, E.C., & Penton-house, Newington, S.
T. Sopwith, Esq.,		of St. Paul's Ca-		Williams, Walter	Southfields, Wandsworth, S.W.
F.R.S.....	3 3	thedral	1 1	Wood, Chas. Wm.	37, Arundel-street, Strand, W.C., and Hereford-lodge, Old Brompton, S.W.
S. Redgrave, Esq.	1 1	W. Maskell, Esq. .	1 1	Yapp, G. W.	
R. Cobden, Esq. M.P.	1 1	The Rt. Hon. The			
W. T. Mackrell, Esq.	1 1	Lord Mayor of			
T. Winkworth, Esq.	1 1	London for 1861-2	5 5		
G. F. Wilson, Esq.,		Sir J. Paxton, M.P.	5 5		
F.R.S.....	1 1	W. Tite, Esq., M.P.,			
John Alger, Esq. ...	1 1	President of the			
Michael Hollins, Esq.	10 10	Institute of British			
Sir A. Rothschild, Bt.	5 0	Architects	5 0		
C. M. Campbell, Esq.	10 10	A. Beresford Hope,			
Dr. L. Playfair, C.B.	1 1	Esq., President of			
John Clutton, Esq....	2 2	the Architectural			
J. Fowler, Esq., C.E.	10 0	Museum	5 0		
J. Bell, Esq., Sculptor	2 2	Sir Charles Trevel-			
Miss Margarita Bell	1 1	yan, K.C.B.	2 2		
Rt. Hon. W. Cowper,		R. Monkton Milnes,			
M.P., First Com-		Esq., M.P.....	1 1		
missioner of Public		Godfrey Sykes, Esq.	2 2		
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J. G. Crace, Esq. ...	2 2	Hall	2 2		
G. Godwin, jun. Esq.	1 1	St. Barbe Sladen,			
R. K. Bowley, Esq....	2 2	Esq., Onslow-sq...	1 1		
J. Scott Russell, Esq.		Messrs. W. B. Simp-			
F.R.S.....	1 0	son & Sons.....	10 10		
J. Sheepshanks, Esq.	1 1	S. R. Griffiths, Esq.,			
Sir C. C. Wentworth		Chairman of Board			
Dilke, Bart., Com-		of Works, Ireland	5 0		
missioner for the		A. H. Layard, Esq.,			
Exhibition of 1862	5 0	M.P.	5 0		
Mr. Alderman Salo-		Talbot Bury, Esq....	1 1		
mons, M.P.	1 1	R. G. Wilde, Esq... 1 1			

Subscriptions may be paid to the account of "Mosaic Wall Pictures Fund," Messrs. Courts, Strand, London; or to Mr. S. T. DAVENPORT, Financial Officer, Society of Arts, Adelphi, London, W.C.

THIRTEENTH ORDINARY MEETING.

WEDNESDAY, MARCH 12TH, 1862.

The Thirteenth Ordinary Meeting of the One Hundred and Eighth Session was held on Wednesday, the 12th inst., J. Griffith Frith, Esq., Member of the Council, in the chair.

The following candidates were proposed for election as members of the Society:—

Adam, John	11, Pudding-lane, E.C.
Cooper, Sir Daniel.....	20, Prince's-gardens, W.
Darvill, Henry	Windsor.
Dodgson, Wm. Oliver ...	26, Royal Exchange, E.C., & Woodford, Essex, N.E.
Ferrabee, Henry	75, High Holborn, W.C.
Fitch, Lewis, F.S.A. ...	Thorpe-hall, Elkington, near Louth, Lincolnshire.
Latham, John	27, Pall-mall, S.W.
Mallett, Henry	Nottingham.
Nash, Edwin	5, Adelaide-place, London-bridge, E.C.
Phelps, Charles	18, Montague-place, Russell-square, W.C.
Porter, Wm. P.	15, Finsbury-place South, E.C.
Rogers, Francis	2, Arundel-place, Barnsbury-park West, N.
Russell, Thomas	18, Cheapside, E.C.
Sargood, F. J.	76, Coleman-street, E.C.

Sewell, Charles Brodie,	75, Guildford-street, Russell-square, W.C.
M.D.	13, Clifford's-inn, E.C.
Summerlin, Thos. Hopkins	Kinburn-house, Lower Tulse-hill, S.
Thompson, James	137, Fenchurch-street, E.C., & Penton-house, Newington, S.
Williams, Walter	Southfields, Wandsworth, S.W.
Wood, Chas. Wm.	37, Arundel-street, Strand, W.C., and Hereford-lodge, Old Brompton, S.W.
Yapp, G. W.	

The following candidates were balloted for and duly elected members of the Society:—

Brand, James	Bedford-hill, Balham, Surrey, S.
Crace, John Dibblee	14, Wigmore-street, W.
Crosley, Sir Chas. D	6, Kensington-garden-ter., W.
Davis, Samuel	Swerford-park, Euston, Oxon.
Dean, Albert A.....	8, Ludgate-hill, E.C.
Devas, Thomas	63 and 64, Cannon-st. West, E.C., and Mount Ararat, Wimbledon, S.W.
Dowling, Thomas	South Sea House, Threadneedle-street, E.C.
Eagle, George C.	137, Upper Thames-st., E.C.
Eaton, Richard	Arnot-hill, Nottingham.
Edwards, Samuel	Manor-park, Streatham, S.
Gay, David	74, Cheapside, E.C.
Harry, Wm. Dyer	19, Gutter-la., Cheapside, E.C.
Hill, Frederick	Helston, Cornwall.
Jones, Jas. Patteshall....	112, Fenchurch-st., E.C., and Roselands, Enfield, N.
Laird, William	Conservative Club, S.W., and 23, Castle-street, Liverpool.
Linington, A. H.	58, Fenchurch-street, E.C.
Maw, Charles	11, Aldersgate-street, E.C.
Orde, Sir John Powlett,	Kilmory-house, Lock Gilp
Bart.	Head, N.B.
Palmer, Ebenezer	18, Paternoster-row, E.C.
Pattison, Henry John ...	5, Martin's-lane, Cannon-st., E.C., and 18, Boundary-road, St. John's-wd., N.W.
Phillips, Major-Gen. Sir	Senior United Service Club, S.W.
Travel.....	26, Nicholas-lane, E.C.
Sewell, John	2, Finch-lane, E.C.
Seyd, Ernest	202, Upper Thames-st., E.C.
Skilbeck, John	Salter's-hall, St. Swithin's-lane, E.C.
Thompson, Edward	91, Great Tower-street, E.C., and Ashenore-house, Keston.
Westfield, Thomas Clark	

The Paper read was—

MAURITIUS: ITS COMMERCIAL AND SOCIAL BEARINGS.

By JAMES MORRIS.

INTRODUCTION.

One of the prominent characteristics of the present day, and one most beneficial in every point of view, is the attention which is given to the colonial empire of Great Britain. Various circumstances have brought about this desirable investigation, the result of which has been that even the public themselves have begun to take an interest in colonial history. The time is now gone by for ever when a colony can be despotically ruled, or even long misgoverned; the time has gone by when that liberty which was enjoyed by the metropolis was denied to the colonies, or as Montesquieu has well said, in that noble work "*De l'Esprit des Loix*," "When liberty was at the centre, but tyranny at the extremities." (Liv. xi. c. 19).

As the direct interference of England in the internal management of the colonies has been gradually, of late years, diminishing, and must for the future be more diminished still, it therefore becomes more important that Parliament and the public should have a clear insight into the political, social, and commercial life of the vast and numerous dependencies of England. This knowledge, which is gained by the people of Great Britain, will react most advantageously on the colonies themselves; but it must be a knowledge founded on no preconceived theories, either of colonial worthlessness or of colonial perfection, still less must it be that knowledge round which the mists of prejudice cling, tinged with a darker or gloomier shade, by the recollections of that system of slavery which once existed in so many of them, and which it will be the enduring glory of England to have abolished. Nor must it be a mere blue-book knowledge; for though no one values more highly than I do the vast importance of statistics if rightly and philosophically used, still this is not all; the inner life of the colonies must be developed and studied, and England must look upon them as a mother upon her children, ever anxious for the correction of their faults, but ever anxious also for the expansion of their nobler and better qualities, which she herself has imparted to them, and which they should be proud to emulate and surpass.

It is for this reason that the country should highly appreciate the services of Institutions like the Society of Arts, where, from time to time, monographs of the different colonies, (if I may use such an expression), have been given by men competent to do so by their local knowledge and experience. Such a "monograph" I propose to give this evening of the colony of Mauritius; small indeed, but celebrated in history, and dear to the storm-tossed navigator, who finds there, at most periods of the year, a safe asylum where every want may be supplied. From its admirable geographical position, reposing calm like a lagoon in the midst of the Indian Ocean, Mauritius has always been regarded as a most important point. To the Frenchman it will always be dear as "La belle Ile de France," which the romantic genius of Bernardin St. Pierre has immortalised in his "Paul et Virginie;" while to an Englishman it will be equally dear from the recollection of the losses which its cruisers entailed on his commerce, and from the struggle which it cost him to wrest it from his rival. But, above all, it will be interesting to the philanthropic statesman as the island upon which the battle of free against slave labour was first really fought and triumphantly vindicated; where the great problem of Coolie immigration was practically solved; and where the skill and perseverance of the planter have rendered it one of the most important sugar colonies of Great Britain. I therefore propose to treat, as briefly as possible, the historical, physical, and social conditions of Mauritius, dwelling, however, somewhat more in detail on its commercial and industrial bearings.

HISTORY.

The early history of Mauritius, particularly that which relates to its discovery by the Portuguese, should be re-written. That "Cerne" (as the island was first called), and the adjacent island of Bourbon, were discovered by Don Pedro Mascarenhas, under the government of Don Almeida, in 1505, and that he gave his own name to the latter island, rests upon a pure assumption by Grant, in his "History of Mauritius," from which most other writers have copied the phrase without taking the trouble to investigate it. During last year I had occasion to examine all the Portuguese historians, and the Latin writers of the same nation, and I can assert that no mention whatever is made by them, or even is there any allusion to the discovery of these islands, which lie so much out of the usual track of the Portuguese navigators; and though several of the Mascarenhas are mentioned by the different historians of the early Portuguese discoveries, the name being a common one, still not the

slightest notice is taken of the discovery of these islands. Again, it was only in March, 1507, that Don Francisco Almeida sailed from Lisbon as Governor-General of India. Lopez de Castenada, who wrote in 1553 (*Hist. do Descub. de la India por los Portugueses*), though most minute as to the discoveries and exploits of his countrymen, is silent on this point, both in the editions of 1553, 1561, in the Italian translation published at Venice, 1578, and in the French translation published at Paris in 1563. The English translation, published at London in 1582, is equally so. Antonio Galvano, governor of Ternate, and most zealous for the glory of his country, makes no mention of this circumstance in his work on the discoveries of the Portuguese (*Descub. por los Portug.*), translated in Hakluyt, 1601. In the magnificent work of De Barros (*Decades da Asia, &c.*, Lisbon, 1552-1736), though the author is minutely careful in recording the deeds of the great Portuguese discoverers, no mention is made of these islands; Mendez Pinto (*Hist. Indica*) is equally silent. Faria y Souza, in his admirable history (*Asia Portuguesa*), published at Lisbon in 1666, and partly translated into English by Captain Steevens in 1695, dedicates several chapters to the exploits of Pedro de Mascarenhas and Francisco de Mascarenhas, though he makes no mention of this discovery. In the elaborate appendix to the third volume, detailing the possessions of the Portuguese, from the Cape of Good Hope to the furthest point of the East, and where he had such an excellent opportunity of amplifying the power of his country, and its glory also, by the magnitude of its discoveries, nothing of the kind is even hinted at. Osorio, in his work, "*De Rebus Emmanuelis Regis, 1571*," though particular and minute, is silent upon this point; and Maffei, *Historia Indica*, 1582, though most circumstantial in other respects, makes no allusion to this discovery. Yet there is no doubt these islands were discovered by the Portuguese early in the sixteenth century, most probably soon after they visited for the first time Matatana in Madagascar. It has been said that perhaps "Cerne" was the island on which Ruy Pereira was wrecked on his return from the east coast of Madagascar, in company with Tristan Da Cunha, from whom he was separated in a storm; but a passage in Osorio is too clear and specific to admit of this meaning (*lib. v. p. 191*). An equal uncertainty prevails as to the date of the discovery of the island; nothing can be more discrepant than the dates of the various writers, ranging as they do from 1505 to 1545, and no clear statement of possession can be given until the first expedition of Admirals Van Neck and Wybrand Van Warwick, which, composed of eight vessels, left the Texel on the 1st of May, 1598. Van Neck commanded the flag-ship *Mauritius*, named after the Stadtholder, Count Maurice of Nassau, and which afterwards gave its name to the island which was accidentally discovered on the 17th of September of the same year, by the Vice-Admiral Van Warwick, whose ships, separated from their companions by a storm, reached the island of Cerne. Mauritius was the name he then gave it, and I trust Mauritius will be the name it will be known by for ages to come. From this time downwards all is clear. The Dutch held the island as a place for resting at in their voyages to and from the East, until they finally abandoned it in 1712; as they were establishing themselves at the Cape of Good Hope, they wished to reserve all their forces for the colonisation of that important point, which promised them a vast empire. This may be called the first period of its history; the second may be termed that when the island was taken possession of by the French, in 1715, and which concluded by the cession of the "*Compagnie Française*" to the Royal Government, in 1767. M. Dufresne, who took possession of the Island in 1715, called it Ile de France, the opposite island of Bourbon having been in French possession since 1664. During this period a celebrated name stands brightly forward, that of M. Mahé de la Bourdonnais, who was made governor of the colony in 1735. He was the real founder of the colony: the brave and indefatigable man who made it what it after-

wards became. He established a superior council, and developed order and union in the midst of disorder and anarchy. At the same time the administrator, the engineer, the architect, the agriculturist, he awoke the zeal and activity of every inhabitant. Hospitals, fortifications, and barracks were built; the sugar cane was successfully introduced; manufactures of cotton and indigo were established, and the manioc (*Iatropa manihot*), which was made into an excellent food, was introduced from the Brazils by his exertions. The name of La Bourdonnais is one of the proudest in Mauritian history; yet it was only lately that the idea was realised of erecting a statue to his memory in the colony which he had created.

The third period embraces that of the Royal government, from 1767 to 1790. The fourth, a period from 1790 to 1803, which may be called that of "Assemblées Coloniales," and the most prominent name of which is that of General Malartic, who, like La Bourdonnais, stands out in high relief for great ability and honesty of purpose. The fifth period dates from 1803 to 1810, under the government of the Captain-General De Caen, until the island was attacked and surrendered to General Abercrombie, in 1810 (3rd December). From this period, until 1849, the island was administered by military governors; but since that time a system more in accordance with the wants of a purely commercial colony has been carried out, and civilians have been appointed as governors, and from this change a degree of prosperity has arisen unparalleled in the annals of Mauritius. The governors selected were those who had been successful in the administration of other colonies, for, as Earl Grey well observed, "It is my opinion that the efficiency of the service as a whole would be increased by thus rewarding those who had distinguished themselves in it." (Colonial Administration, &c., p. 42.) Mauritius may, therefore, congratulate itself in the possession of such a governor as it now has in His Excellency Mr. Stevenson, a man of large and liberal mind, always active for the amelioration of the colony, independent enough to carry out his own views when his local experience tells him that such views are correct, and amply trusted by the government at home, so that the colonial and the governmental action are never brought into antagonism; the introducer of railways, the patron of free education, and the reformer of many sanitary and social abuses which at one time seemed to be inevitable in colonial life. Such selections as these are the real bonds of union between the colonies and the metropolis, and long may they be continued.

NATURAL HISTORY.

The Island of Mauritius, which is about 120 miles from Bourbon, and about 490 from Madagascar, is situated in the Indian Ocean, between the parallels of 19° 58' and 20° 33' south latitude, and 57° 17' and 57° 46' east longitude (from Greenwich). The form of the Island is nearly elliptical; its extreme length from Cap Malheureux (the landing-place of the English when the island was taken) to Cap de Brabant is 40 miles, its greatest breadth from Port Louis, the chief town, to Grand Port, is 30 miles. Its surface contains 432,680 acres, or 676 square miles. These estimates are those made many years back by the astronomer Abbé de la Caille, and the naturalist, M. Le Gentil; the late Colonel Lloyd published, in 1837, what he called a verification of these observations, but the island requires a new survey and a new map. Among the many excellent suggestions of the present governor was that of a trigonometrical survey, as the basis of a more perfect map than now exists; this however, has not yet been done. The writer of these lines suggested that a geological survey should also be made, and it appeared to him a peculiarly fitting time to do so when railways are about to be constructed in the island. He mentioned that some of the pupils of the Government School of Mines, who have so highly distinguished themselves in other colonies, and whose abilities were so much praised by Sir Roderick Murchison at

the opening of the Geological section last year, should be selected for this scientific labour, not only with regard to Mauritius itself, but also with respect to its other dependencies, as the Seychelles group, the Ile de Rodrigues, &c. By this means we should obtain the systematic geology of these islands, and in the place of the antiquated science of the last century, and different short notices scattered here and there in scientific journals and books of travels, there would be a clear and concise system of the whole. Were a Flora of Mauritius superadded to this, these interesting islands would be as worthily represented in their botany and geology as they deserve to be. The *Hortus Mauritanus* of the late Professor Bojer, is an excellent work of its kind, but a Flora for Mauritius is required, like the *Flora Capensis* of Harvey, the *Flora Zeylanica* of Thwaites, or the excellent *Flora Hongkongensis* of Bentham. Abundant materials exist in the colony, and there are scientific men there capable of producing such a Flora.

The island, like those around it, owes its origin to volcanic action in remote ages, and to the incessant labours of the coral insect. In every part the remains of extinct craters testify to the violent action of volcanic force, a force still existing at Bourbon in its active volcano. It has been asserted by some scientific men that Mauritius and Bourbon were formerly united, and that a submarine communication still exists. Between the south-west part of the island and Bourbon there is a remarkable identity, the same, in fact, that one notices in the formation of England and France, which have been separated by the Straits of Dover. The Basaltic mass of the Baie du Cap, and the huge contracted form of the Moire Brabant in the Savanne, remarkable both for the singularity of its appearance and the peculiarity of its situation, being partly in the sea and partly on a beach of coralline detritus, and rising to the height of 2,000 feet, would seem to confirm this fact. Various chains of mountains, rugged and broken, and seared by the burning pressure of the lava-floods of ancient days, intersect the island; the most peculiar is that of the Pieter Booth, so named after a Dutch admiral who was shipwrecked near the coast, and which forms a striking back ground to the town of Port Louis. The height of this mountain is 2,530 feet.

Rising from the sea to the centre, like a truncated cone, serrated in peaks of every form, nothing can exceed the picturesqueness of Mauritius, and certainly no island can surpass it for beauty of scenery; its miles and miles of verdant cane fields, undulating in the south-east breeze, the plumes of the cocoa palms, the feathery forms of the various acacia tribes, and the glorious "Flamboyant," the *Poinciana Regia*, originally from Madagascar, where it is known by the name of "fannou," with its vivid green leaves and brilliant red masses of flowers; the darker leaves of the different mango and tamarind trees, all tend to increase the richness of the landscape. Then in the interior of the island, what beautiful waterfalls; the cascade of Plaines Wilhems, with its fall of waters from the height of 180 feet, surrounded with vauona and bois noir trees (*Pandanus utilis* and *Mimosa (Acacia) Lebbek*); the falls of the Chamarel, from a height of more than 400 feet, separated into two just before its descent by a large mass of rock, surrounded with tree ferns glittering in the spray, and frowned upon by the Piton de la Rivière Noire, the highest point in the island, being 2,950 feet above the sea level; the falls of the Tamarin River, foaming over its five ledges of basalt, and rolling on to the sea through a woody ravine of nearly 300 feet deep; all these and other spots have won for Mauritius the well-deserved name of the pearl of the Indian Ocean. I may here particularise the peculiarly beautiful blue of the sky above Mauritius, which looked up to through the clear and brilliant air, gives the greatest idea of distance I have ever seen, and equals what Euripides says of the clear blue skies of Greece. ("Medea," v. 809, &c.) I regret I have no space to refer further to the geology of the island, or to the peculiar coral belts that surround it; I would allude, however, to the still excellent work on that subject by M.

Bory de St. Vincent (*Voyage aux Iles d'Afrique*), and to the admirable investigations of Darwin in the geological portion of the voyage of the *Beagle*, the "Journal of a Naturalist," and in the "Specific Work on Coral Reefs, &c.," to Captain Carmichael's truthful notice ("Hooker's Bot. Miscel.," ii. p. 301), and to Colonel Lloyd's account ("Geol. Trans.," iii. p. 317). I may also mention that Dr. Ayres has given a short geological account of Flat Island, which will be found at p. 220 of the "Transactions of the Royal Society of Arts and Sciences, Mauritius, 1860," going over the same ground that Dr. Desnoyer had already illustrated.

As to the Flora of Mauritius, this island, together with Bourbon and Madagascar, have been considered as belonging to the African alliance by their geographical position; yet they differ materially from the Flora of Africa, and more assume the peculiarities of the Indian Archipelago, from which they are separated by widely extended seas. But the tropical position of Mauritius at once determines its vegetation, though the late Professor Bojer, who examined the coast of Mozambique and Zanzibar, found there many plants the same as those in Mauritius, though there are some genera peculiar to Mauritius. All the valuable plants and trees, however, that grow in the Indian Archipelago succeed equally well in Mauritius. I may here mention that the coco-de-mer (the double cocoa-nut) (*Lodoicea Seychellarum*), so long a botanical mystery, though it flourishes so well on its solitary spot, the little Ile Praslin, of the Seychelles group, does not succeed well in Mauritius; and the same may be said of the mangostan (*Garcinia Mangostana*), though it thrives nearly as well in Bourbon as in its native Moluccas. In the Botanical Garden of the island, the spice tribes, introduced with so much care and trouble by that celebrated man, M. Poivre, and cultivated so assiduously by M. Céré, (but which are now no longer extensively grown there), as well as every variety of tropical plants are to be found. Its director, Mr. Duncan, has sent a small collection of fibres to the International Exhibition. But every class of fibre-producing plants may be found in the island; and were this speciality, with that of cotton cultivation (for Mauritius and Bourbon were once celebrated for their cotton), to be introduced into the dependencies of Mauritius, so perfectly suited to their growth, those dependencies might be rescued from their present abject state. In a commercial point of view, I may mention that the *Pandanus* class, *P. utilis*, *P. odoratissimus*, and *P. sativus*, from the leaves of which the sugar-bags are made; the various kinds of *Bromelia*, *Agave*, and *Sansevieria*, the *Musa* tribe, particularly the *M. textilis* and the *Urania speciosa*, from whose fibres so excellent a cloth can be made; the *Corchorus* tribe, the various kinds of the *Hibiscus* and *Asclepiadaceæ* families, as well as the *Urticaceæ*, all which grow in abundance; but up to the present time, with the exception of the leaves of the *Pandanus*, they are turned to no useful purpose. Of the sugar-cane I will speak further on. As to the woods, a gentleman has sent a small selection to the Exhibition. In the colony flourish the teak (*Tectonia grandis*), the Bois de Natte (*Mimusops*) of various kinds, one kind of which (*M. imbricata*) grows 60 feet high, and is an excellent wood for furniture making; the different kinds of ebony (*Diospyros*), for which Mauritius was formerly celebrated; the two kinds of tacamaka, the red and white (*Calophyllum*), the iron-wood (*Stadtmannea Sideroxylon*), the *Mauritiana fetida*, the stinking wood, which, on account of its extremely disagreeable smell, the white ants will not attack, and it is therefore used as the foundations of houses. Other kinds, excellent for building and furniture purposes are also found. The oil-producing and the dye producing plants are also numerous, and various medicinal plants flourish in the island, an account of which has been published by that excellent botanist, the Secretary of the Royal Society of Arts and Sciences, M. Bouton, in his work, "*Plantes Médicinales de Maurice*, 1857." The vanilla (*V. aromatica*), which grows admirably in Mauri-

tius, and for specimens of which a medal was granted at the Paris Exhibition of 1855, is not cultivated to the profitable extent it might be, and which is so effectively done in the neighbouring island of Bourbon. But I must stay no longer on this portion of my subject, which, from its great utility, deserves an especial notice. I may mention that Mauritius is extremely rich in orchids and tree ferns, some indigenous to the island. Coffee of a very superior kind was formerly cultivated, and indigo also; but of late years the cane-culture has entirely prevailed; the destruction done by the hurricanes was also a reason for abandoning the growth of coffee, though a very large quantity is consumed in the colony, as I shall elsewhere mention. A very excellent kind of tea was grown a few years ago; but it was on too limited a scale to be commercially profitable, and the idea was abandoned.

The zoology, ornithology, ichthyology, and entomology of the Mauritius have been little studied of late years; more attention has been given to its conchology, of which some excellent and extensive collections exist in the cabinets of private individuals. The ornithology of the island is not extensive, nor is the zoology, though some interesting points are to be found in both these branches. A catalogue of the animals of the colony was attempted by that zealous naturalist, and patriotic Mauritian, the late M. Julien Des Jardins, assisted by M. Guérin Méneville, and a few notices are found in the "Transactions of the Society of Arts and Sciences;" the same may be said of the insects, of which M. Des Jardins has published a collection, and a few are to be found in the *Catalogue des Coléoptères* of Count De Jean. Of the fishes, many are excellent for eating, particularly the goromy (*Osphroenus olfax*), introduced from China; the rock cod, mullet, &c.; and many of them are particularly beautiful, though poisonous, of striped and variegated colours, and seen to great advantage when darting through the coral forests in the deep blue sea. Of the birds, the most interesting have been introduced from other countries; the guinea fowl are abundant; quails, partridges, of which there are two species, one like the common partridge of England, the other with spotted plumage (*Tetrao Madagascariensis*). The martin (*Gracula tristis*), introduced from the Malaccas to devour the locusts, which at one time infested the island, is an amusing bird, a great mimic, and a favourite with the Creoles. The Tropic Bird (*Phæton Ætherius*), and various kinds of parrots, &c., are to be found. Among the lizard tribe, also, there are some very beautiful. I would particularly mention the Gecko (*G. Heliotropica*), about seven inches long, of a brilliant green colour speckled with faint crimson; the belly, a fawnish yellow, a line of azure traversing each eye and along the neck and shoulders, a triangular spot of the same colour edged with crimson over the nose. The eyes are particularly vivid, and when this lizard is seen on the leaves of the *Pandanus*, nothing can be more beautiful. For the history of the Dodo and the Solitaire, birds now quite extinct, but formerly abundant in Mauritius and the Island of Rodrigues, I beg to refer to the admirable monograph on the Dodo and the Solitaire by the late Mr. Strickland; though I may mention, *en passant*, that last year a few bones of the Solitaire were sent to England by Mr. Bounton, Secretary of the Royal Society of Arts and Sciences, which I had the honour of presenting to Professor Owen. The Aye-Aye (*Cheiromys Madagascariensis*), of which a very interesting account was published in the Colony, in 1860, by Dr. Sandwith, and of which an elaborate scientific description has been lately read by Professor Owen before the Zoological Society, is brought from time to time to Mauritius, where it lives as well as in its native place. Among the shells of Mauritius there are some very fine, though many of them being inhabitants of the deep sea, are difficult to obtain. The Lepus, the Admiral, the *Cypræa mappa*, or Map-shell, the double Harp (*Harpa nobilis*), are beautiful shells, while one species of *Melania* (*M. setosa*), is of great rarity,

being crowned with vaulted spines, each of which incloses two or three setaceous bristles. My space precludes me from any further detail on this point.

CLIMATE, METEOROLOGY.

Though situated within the tropics, Mauritius is not subject to the burning heat which is experienced in India and elsewhere, and at certain periods of the year, from the end of April to October, the climate is delicious. The south-east wind which blows during a considerable portion of the year imparts an agreeable coolness to the air. There are simply two seasons, from the middle of October to the middle of April, the summer; and from the middle of April to the middle of October, the winter (cool) season. The south-east wind blows fresh and is always dry, it rises generally about 8 a.m., and is replaced during the evening, and at night by the land breeze. The north-east wind is generally rainy; it is this wind which blows during the heaviest rains in the months of January, February, and March, if it blows in the other months of the year it only brings slight showers. The north is rainy; the north-west, west, and south-west winds are sometimes accompanied by rain, more frequently in the hot season; these winds are scorching and unhealthy, and their effect on vegetation is to burn the leaves as if fire had passed over them. With regard to the barometer and thermometer, I may remark, from a series of observations of my own over a number of years, and compared with those of Captain Stokes, R.E., the Government Observer, and with those of Professor Meldrum, of the Observatory of Port Louis, and of the Meteorological Society of the colony, for the modern observations, and with those of M. Lislet Geoffery, M. Labutte, and M. Julien Des Jardins for those anterior to my own, the highest indication of the barometer during the year, was 30.50, the mean of highest indication was 30.25; the lowest indication (excepting during a hurricane) was 29.80; the mean of lowest indications was 29.86; the highest indication of the thermometer (F.) was 91; the mean of highest indications was 77.75; the lowest indication was 67, and the mean of lowest indications was 70. These observations were taken indoors, about 80 feet above the level of the sea. The depressions of the barometer took place at or about, generally just before, the phases of the moon. The mercury in the barometer rises a little before 9 a.m., and falls a little after 3 p.m. These movements are generally very slight between 8.30 and 10 a.m., and between 2.30 and 4 p.m., and at these periods the barometer, if not closely watched, might be considered stationary. At midday, and at 6 p.m., the indications of the barometer give an average height little different from those at 6 a.m.; a second maximum may be observed about 9 p.m. The movement of the barometer is very regular; there are comparatively few days in the year when the diurnal oscillatory movement does not occur at the regular hours.

Mauritius lies in the hurricane track, and the colony has been visited with many severe ones, the most remarkable being those of 1784, 1818, 1819, and 1824. A very severe storm took place at the beginning of last year which did considerable mischief to the sugar canes, and which is minutely recorded by Professor Meldrum, whose observations on the meteorology of the Indian Ocean do very great credit to the scientific society to which he belongs. These cyclones are really caused by the obstacles the trade winds meet in their ordinary course, by the variations the atmosphere experiences in the hurricane season (January, February, and part of March), when the equilibrium of the south-east trade-winds is disturbed. These hurricanes always commence from south-east and east, and as soon as the wind veers to north, that is in proportion as the equilibrium is established and the current of air is exhausted, the violence of the cyclone diminishes, and a lull takes place when it has passed south. These hurricanes are

preceded by intolerable heat and calms, and the atmosphere is charged with heavy dense vapours; the glowing description which Bernardin St. Pierre gives, in his "Paul et Virginie," of one of these fearful disturbances of atmospheric equilibrium, is hardly exaggerated. The barometer is an infallible guide. It strikes me, however, that the hurricane-track is slightly altering so far as Mauritius is concerned.

SOCIAL AND POLITICAL STATE, &c.

Mauritius holds a very high intellectual position; the forms of life, in Port Louis particularly, are as elegant and polished as in Paris or London. Schools of every kind, private and governmental, are to be found in every district of the island. The Royal College is the chief establishment; it is governed by a rector and a staff of English and French professors, and the colony very liberally grants £200 per annum, for four years, to the two best students of the year, to enable them to finish their education in Europe, and embrace a profession, law or medicine generally. Some of these young students take high honours in England, though competing with Englishmen. The Royal Society of Arts and Sciences is well-known to the scientific world; and the Meteorological Society is earning for itself an honourable position. In November, 1859, the Young Men's Association was formed, under the auspices of the Bishop of Mauritius, and lectures on different subjects, by the young men themselves, have been given which would do credit to an institution of the kind in England. In a tropical climate, and in a small colony like Mauritius, this is highly creditable; it tends to show the vigour of the Anglo-Saxon race, though I may observe that some of the most successful lecturers are Creoles of the colony, Anglo-Saxon in thought and education, if not in the fact of family connection. I may notice here that Mauritius has been in possession of England since 1810; yet French is the dominant language of the place. The Catholic and Protestant populations have their respective bishops and clergy, though the Protestants are comparatively few when compared with the Catholics. The government is carried on by a council composed of official and unofficial members; and the colony is now rising into municipal life, and manages its own local affairs by means of a mayor and councillors. Such institutions are certainly beset with difficulties in mixed colonies; and on this subject his Excellency Governor Stevenson has remarked:—"The community in its English, French, Creole, African, and Asiatic varieties, is too mixed, and the Creole population have been too long accustomed to the old regime of dependence on government, to render any such great change (free and liberal government) at all advisable at present; and their tastes, habits and predilections are not sufficiently English to enable them thoroughly to understand and appreciate what English people know and admire as 'free institutions' and 'free constitutions'; and whatever opinions certain sections of the community may express to the contrary, I am satisfied that a sudden introduction of a free constitution into this colony would jeopardise all the institutions, and render them open to great, although, perhaps, unintended, abuse." (Report to the Duke of Newcastle, August, 1860. Blue Book, 1861, p. 108.)

Omitting the Indian population, the creole population always intelligent, has made vast progress in education and liberal ideas during the last few years. No greater proof of this can be shown than the eagerness they manifest for the education of their children. The press in the colony has also immeasurably risen beyond what it was a few years ago, and some of the papers published in Port Louis are quite equal to those published in our own country towns; in statistical information they are decidedly superior, for few country newspapers in England can boast such carefully digested statistical *comptes rendus* of their local affairs as are to be found in the pages of the *Commercial Gazette* of Mauritius. The banks which are established in the colony, the insurance companies, the dock and other estab-

lishments, all of which exemplify the zeal and energy of the community, and all of which pay good dividends, prove that the Mauritius of to-day is the Mauritius of a few years back, and that since the abolition of slavery, in 1833, the colony has expanded into a freer and better existence. Mauritius must now be judged by the present, and not by the past.

IMMIGRATION, &c., POPULATION, RAILWAYS.

As I said at the commencement of this paper, Mauritius has fairly solved the problem of Coolie Immigration, and it has solved it in a manner to show what a vast benefit this has proved to that race, while at the same time it has been of incalculable advantage to the colony itself. Nothing can be a clearer refutation of the calumnies which have surged up from time to time against the colony on this point, than the history of this immigration. Its value, however, is demonstrated by its success, for any one who will read the various reports on the question with an unprejudiced mind, will come to the inevitable conclusion that the Coolie labourer in Mauritius is better paid, better cared for, and better off at the end of his period of service than the common farm labourers in England. I cannot go into this subject now; but I beg to refer to such documents as the reports of Mr. Beyts, the first of which, curiously enough, is not inserted in the last Blue Book for the colony, and the reports of Mr. Stipendary Magistrate Ogilvy. In 1859, the new system of immigration was introduced. Engagements with Coolie labourers before this period were made in the colony and its limits alone; then the planters had the privilege of engaging them in India itself, such engagements being made through the Government agency in India. The Indian labourer is now engaged for three years, to remain five years optionally. In the convention which the English Government has made with France for the introduction of Indian labourers into French colonies, the term of service has been made for five years positively; in other words, the foreign colony in which the Indian labourer has never, or rarely been tried, has been at once placed upon a superior footing, in comparison with a colony of the British Crown, which, of all colonies, knows more of the working of immigration, so far as the Coolie is concerned, and which owes to it its present almost perfect condition. What is good for the Island of Réunion is surely equally good for Mauritius; the planters are, therefore, endeavouring, and justly, to have the same advantage, so that the period of service of Indian labourers should be five years. To deny this right would be illogical; to refuse it would be unjust. I may notice that on account of the representations made to the Indian Government, the immigration to Mauritius was suspended in 1838; the prosperity of the colony at once declined. This immigration was renewed in 1842, and Mauritius since that period has gone on increasing in commercial prosperity year by year. At the end of 1859 the general population was 96,526

The immigrant population... .. 201,979
Aliens, Chinese, &c. 6,541

Total 305,046

By the census of April 8, 1861, the figures stand thus: The whole population was 308,335; of this two-thirds, or 215,068, were Indian.

During the decennial period from 1851 the population had increased by 127,512. The above figures do not include the military, naval, and sailor population, which if added, raises the general total to 311,747; this would give about the proportion of 1.55 inhabitant per acre. The population of the chief town, Port Louis, was, with its environs, 74,111; and four of the districts, Pamplemousses, Flacq, Grand Port, and Plaines Wilhems, numbered respectively 55,598, 41,468, 35,564, 28,020. The proportion of the sexes presents the following variation per cent. in the decennial period:—

	1851.		1861.
Males	66.02	.....	65.45
Females	33.97	.....	34.55

100.00

100.00

It will be seen, therefore, how large an item is the Indian population, which is one of comparatively modern growth. This will be made clearer by the following statement:—The number of Indians in the colony on the 31st December, 1842, was—males, 18,105; females, 888. In 1852 the numbers were—males, 80,727; females, 19,478; and from 1854 to the end of 1860, the numbers introduced were—males, 91,643; females, 29,719; children, 16,622; making a total of 137,984. The number that returned to India during that period may be assumed at—males, 28,026; females, 5,532; making a total of 35,558. In 1861 the immigration movement was:—

	Male.		Female.		Children.
Introduced...	7,917	.....	2,708	.....	1,475
Left	1,638	317	203

Increase of Immigrant Population during the Year	6,279	2,391	1,272
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The proportion of females in this immigration has been augmented every year, and the prosperity of the body of immigrants is evidenced by two results—the numbers that prefer to remain in the colony when their term of service expires, and their accounts in the savings' banks, and the sums of money they accumulate and take back with them to India. The proximity to India, and the facility of obtaining Coolie labour is a purely accidental circumstance of position in favour of Mauritius, which is more fortunate than the West Indies in this simple geographical combination. But the prestige in favour of Mauritius is not the result of accident—it is the positive consequence of the treatment the Coolies receive there, the excellent wages they obtain, the deference which is shown to their peculiar religious and social feelings, and the certainty that the power of the law is entirely on their side, and that when their period of service is over they are free men to stay or return, and if they do elect to stay, they are free men still in the fullest sense of the term, freer far than they are in their native India—men, not pariahs. This is a point on which I have thought it worth while to insist; for there have been so many myths recorded of Mauritius and its Indian labourers, that I think the opinion of one who knows them well, and who knows the colony equally well, though he has not one atom of interest in any sugar estate, or any commercial establishment in the island, may be considered worth something, as being at least an unbiassed one, and derived *à re, non à rerum simulatione*, which is too often the case.

With regard to the mortality of the colony, I have no satisfactory statistics for the different quarters, but for the town of Port Louis, the chief town, the case is different. According to the census of 1851, the population of Port Louis was 49,509; by the census of the 8th April, 1861, it had risen to 74,111. From that time to the middle of 1861, the following are the results:—

Year.	Deaths.	Mortality per Cent.
1852	2,056	4.02
1853	2,217	4.22
1854*	6,156	11.40
1855	2,702	4.82
1856*	4,628	7.91
1857	2,263	3.70
1858	2,688	4.04
1859	3,179	4.64
1860	3,672	5.03
1861†	2,155	4.98

* In these years the cholera prevailed. † Seven months.

So largely increasing a population naturally led to the idea of introducing into the colony that great element of civilisation and commercial prosperity—railways. It was in 1855 that this idea first substantially originated with the writer of this paper and an influential inhabitant of Mauritius, who then happened to be in England. The question was warmly discussed, argued and re-argued in the colony for the space of three years, until it at length assumed so tangible a shape that railways became an actuality. A sum of money was voted for a preliminary survey; an eminent engineer, Mr. Longridge, and a small staff, were selected by the Secretary of State for the Colonies, and left England for the Mauritius in May, 1858. That gentleman published an excellent report of his survey, and a valuable appendix. Two lines of railway, the Northern and the Midland, were decided upon, and after many delays—a *sine qua non* in everything colonial—the money was voted, amounting to nearly a million and a quarter sterling, and it was determined to issue debentures at six per cent. to meet a considerable portion of that sum, government advancing £200,000 out of its surplus revenues, which at the end of 1861 had reached the large balance of £500,000. The contract was given to Messrs. Brassey and Co., and Mr. Longridge as their engineer; the railway staff are now in the colony, and the works are to be commenced at once.

PRISONS.

I have left myself no space to speak of the hospitals, and but little of the prisons, both of which are ably managed. Of the prisons I have no official notice beyond 1859, when the number of prisoners on the roll of the prisons was 7,160, a portion (454) remaining at the end of 1858, and the remainder, 6,703, admitted during the year. The number of committals in this year showed over the preceding year an increase of 763, or 7·78 per cent., though there was a decrease of 60 per cent. as compared with 1857. The committals for vagrancy and desertion of service, those unfortunate items in immigrational life, were still large, though on a decreasing ratio, being in:—

1857	4,546
1858	2,687
1859	2,444

The number of committals, if compared with the population, is very small, averaging four cases daily. As to the more serious, or felonious cases, in the English acceptance of the term, the average of 1859 was an improvement over former years, being—

	Total charged.	Convictions.	Acquittals.
1857	93	49	44
1858	67	33	29
1859	76	39	36

The receipts and expenditure for prisons and prisoners were as follows:—

Expenditure	£5,855
Receipts	1,696

Excess of expenditure £4,179

This gives a yearly expense for each prisoner of £8 18s., or about 4½d. per day. A reformatory, and an institution for juvenile offenders, are still desiderata. At the present day, these are such important aids of prison discipline, that it is to be hoped they will be no longer delayed.

COMMERCE, REVENUE, &c.

The commerce of Mauritius is a satisfactory topic; though immigration has done much, it has not done all; the energy and perseverance of the planters have co-operated with this powerful element of success. From the moment they saw that free trade—that necessary and logical deduction from the commercial policy of England—was inevitable, they determined to meet the struggle in the only way in which it ought to be met, or, in fact, could be successfully met; that was, by the introduction of the best machinery, by availing themselves of every

invention, by superior manipulation, by more scientific processes, by an enormous importation of guano, and by a rigid economy in the administration of their estates. The result has been, what it ever will be, when similar modes of action are introduced into any system—a great success, only wanting one thing to make that success complete—the removal, or modification of an obsolete, and to my mind, an unjust, fiscal arrangement—the differential sugar duties. A few figures will make this more clear by a comparison of periods:—The exportation of sugar was in—

Years.	Lbs.	Receipts.	Expenditure.	
1820 ...	15,524,755...	£102,875...	£135,433...	£32,558
1825 ...	21,739,766...	141,167...	178,003...	36,836
1830 ...	67,926,692...	164,542...	153,382...	11,160
1840 ...	82,048,509...	243,955...	181,058...	62,897
1845 ...	87,334,312...	296,828...	280,011...	16,817
1850 ...	110,937,388...	308,550...	265,747...	42,803
1855 ...	253,892,673...	348,452...	317,839...	30,613
1859 ...	247,948,302...	609,517...	572,479...	37,038
1860 ...	281,256,452...	553,419...	500,853...	52,556
1861*	257,600,000...	349,925...	289,652...	60,273

Deficit.

Surplus.

* Nine months to 30th September.

The crop of 1860-61 was estimated at 150,000 tons, but the ravages of the borer reduced it by at least 20,000 tons. As sugars pay an export duty of 5s. per ton, this alone caused a revenue loss of £5,000. There has of late years been a very large falling off in the revenue from spirituous liquors, nearly £20,000. Mr. Governor Stevenson alludes to this as far back as 1859, and attributes the falling off to illicit distillation, and frauds on the revenue. By the Board of Trade returns for the year 1861, the figures for Mauritius sugars were—

IMPORTED.			
	1860.		1861.
2nd quality..... cwt.	636,243	.....	886,430
3rd " " " "	513,433	.....	605,439
Total	1,149,676	.....	1,491,869

ENTERED FOR HOME CONSUMPTION.

	1860.		1861.
2nd quality. cwt.	500,374	.....	987,521
3rd " " " "	428,452	.....	531,587
Total	928,826	.....	1,519,108

The average consumption of coffee in Mauritius, during the last three years, has been 1,200,000 lbs.; the average consumption per head per annum is—

In France	about 1½ lb.
England	" 1½ "
Mauritius	" 3 "

The total value of the import trade of the colony at the end of 1860, amounted to £2,769,209, and that of the export trade to £2,259,639. The declared value of the exports from the United Kingdom to Mauritius was—

In 1860.	In 1861.
£538,303	£551,797

The planters expended alone in mill-machinery, guano, and mules imported, the following sums in the following years:—

	1857.	1858.	1859.	1860.
Machinery ...	£76,080	£92,298	£81,204	£81,204
Guano	24,290	109,759	98,973	98,973
Mules	43,040	35,444	29,569	29,569

According to the last reports for the year ending March 31st, 1861, the colonial military expenditure of Mauritius, for 1,630 officers and men, &c., cost England £145,558, of which sum Mauritius contributed £25,354. I cannot enter into this colonial military expenditure question here; it has been amply discussed of late years, and lately in the able pamphlet of the Right Hon. C. B. Adderley, M.P., in his letter to the Right Hon. B. Disraeli, M.P. The motion

of Mr. A. Mills and the discussion on it in Parliament, on Tuesday week, have not added anything to our previous knowledge. It is rather too much, however, to advance the argument of mere self-government as the basis of making the colonies support their own defences; nor can it be said that the military are kept in the colonies alone for preserving their internal order and security. In Mauritius they do nothing of the kind, and their duties in this respect are light indeed. In colonies like Australia, Canada, &c., the argument might be valid, but certainly not in Mauritius. Nor would Mr. Adderley object to the sum of £15,000 for the completion of the fortifications in Mauritius, as he did on the 6th inst., were the importance of Mauritius as a military point in the Indian Ocean considered; and were he to remember that Bourbon Island is also a very commanding position. Anyhow, our Indian commerce *via* the Cape is worth protecting; Mauritius has two admirable harbours, and could do this in an emergency. Our merchants suffered too much at the beginning of the present century, from the losses inflicted upon them by the cruisers from the Ile de France, to ever risk such an alternative again.

THE BORER.

As I have previously mentioned, the "Borer-insect" has for several years past done considerable mischief to the cane plantations, and the evil is increasing. In 1855, a committee was appointed by the then governor, Sir James Higginson, and a valuable report, with drawings of the insects appended, was drawn up by the celebrated botanist, the late Professor Bojer. He fancied it to be a new insect, and named it *Proceras sacchariphagus*. The author of this paper, however, showed that it was no new insect, but the *Diatraea sacchari* (the *Phalæna Saccharalis*), (see Westwood's "Mod. Classif. of Insects, ii. 411), which the Rev. L. Guilding so well described, and for his essay on which he received the gold medal offered by the Society of Arts. (Transact. Soc. Arts, xlvii., 143.) The ravages by the caterpillar of this moth have been almost as destructive in the Mauritius as in the West Indies. The Chamber of Agriculture offered a reward of £2,000 for a remedy. Every remedy under the sun was at once brought forward, some outrageously ridiculous, as theoretical remedies generally are. The writer of these lines exhorted the planters in 1855 to destroy by fire those canes on which the borer was then only beginning; the remedy was not adopted. The evil is now a serious one; it has extended also to the sister island of Réunion (Bourbon). As yet no remedy has been discovered. Any suggestions, however, from practical men on this point would be received as a boon by the colony; and if this paper can be the means of obtaining them, the writer will consider himself happy in being able to contribute in the smallest degree to so desirable an object.

DIFFERENTIAL DUTIES.

I will allude to this point, one of vital importance to Mauritius, not in a political, but simply in a commercial spirit. If free trade be what I firmly believe it is, a positive advantage to the whole community, then the principles of free trade should, one and all, be carried out in their fullest logical extent, and not by any piece-meal selection of some of its conclusions, and the rejection of others to suit a financial contingency. I cannot introduce this subject better than by an extract from the Budget speech of Mr. Disraeli, then Chancellor of the Exchequer, in 1852. After comparing the entries for home consumption of Foreign and British sugar for the first ten months of 1851 and 1852, he said:—"It may be said that these are merely figures, but I beg to observe that in this instance figures constitute the case. This is a question of figures, and the result of the figures I have quoted is, that there being in 1851 4,126,000 cwt. of British sugar against 1,487,000 cwt. of foreign, in 1852 there were 5,378,000 cwt. of British against only 814,000 cwt. of foreign. In other words, British production has increased by 1,250,000 cwt. I may be called a traitor. I may be called a rene-

gade, but I want to know whether there is any gentleman in this House, wherever he may sit, who would recommend a differential duty to prop up a prostrate industry which is actually commanding the metropolitan market." It is not for the figures but for the last phrase, so conclusive, that I quote this speech; for it proves that competition is better than monopoly of every kind, and at the very time that certain parties were prophesying that the admission of slave-grown sugar to compete with British sugar would be the ruin of the British Colonies,—the British Colonies actually produced more than during the period of their monopoly. The West Indies and Mauritius will prove this, and be quite sufficient for my argument:—

WEST INDIES.		Cwts.
Average of five years ending July 1846	1846	2,708,730
" " " " 1851	1851	2,821,204
Increase		118,474
MAURITIUS.		Cwts.
Same periods	1846	674,256
" " " " 1851	1851	950,163
Increase		275,907

I denominate the differential duties, as at present constituted, monopolies in favour of the English refiner, and as such, a protectionist tariff in the midst of the flourishing results of free trade. When Government declared the assimilation of the duties on sugars, whether from free or slave labour, the colonies were told to gird themselves for the struggle, to adopt better modes of manufacture, to import more improved machinery, and prepare a better article for the markets of the metropolis. They did so; but the differential duties, in their four unhappy divisions, carried by the Chancellor of the Exchequer (Mr. Gladstone) in 1854, immediately neutralised their efforts (I am only speaking of Mauritius), and the superior sugar made from the same raw material, and which this improved machinery, &c., enabled the planter to produce, had a *high* duty levied on it, while the inferior kind had a *low* duty levied on it. The value of improved processes was therefore an absurdity; the subdivision of duties immediately gave a premium to bad manufacture, and discouraged improvement. This will appear clearer from the following statement, which will show, I flatter myself, how the relations of sugar-value to the grower are capriciously disturbed, how these values become artificial, and how the consumer is taxed in a necessary article of his daily consumption in the very ratio of the improvement of such article. These differential duties at present existing are as follows:—Refined, 18s. 4d; white clayed, 16s.; brown clayed, 13s. 10d.; not equal to brown clayed, 12s. 8d.; molasses, 5s. per cwt. Such nice distinctions may be called the metaphysics of sugar taxation. Now see the result. Were these different kinds of sugars marked by broad distinctions of colour, crystallization, &c., they could then be easily estimated; but when near equalities, and very slight surpassings of these standards by a small amount of value occur, instead of a duty of 12s. 8d. the 13s. 10d. duty comes into operation, though the buyer will offer the same price for both, so that the extra duty, which goes for nothing in the real value of the sugar, absolutely gives a greater nett value to the 12s. 8d. taxed sugar than to the 13s. 10d. From a duty of 13s. 10d., there is a sudden rise to 16s., on the product of the identical sugar cane perhaps. Here the home sugar refiners have a monopoly, and this arbitrary leap of 2s. 2d. per cwt. excludes the best sugars from the English market, and consequently is an injustice to the producer, and a wrong to the consumer, for though these sugars are really more valuable, and pay the higher duty of 16s., they do not produce in the market more than 6d., 9d., or 1s., above the inferior kinds paying the 13s. 10d. duty. The consequence is vexation to the purchasers, who

never perfectly know under what category of duties their sugars will fall, until the duty is fixed upon them; the finer qualities of Mauritian produce, therefore, go to France and Australia, where the tariff is more liberal.

While on this point, I beg to call attention to a valuable report of the Chamber of Agriculture in Mauritius, drawn up by practical men, and published on the 12th November, 1861. I have had this report reprinted, and it is at the service of any gentlemen, as the greatest publicity and the greatest discussion are, in my estimation, the surest safeguards of truth, whether political or commercial. From that report I will extract two passages:—"What can be more arbitrary and more uncertain than the principle of an *ad valorem* duty dependent on the colour of a sugar. How can the just limit be established between the colour which is to pay one and the colour which is to pay the other duty? The Custom House officer is thus left the sole arbiter to fix the duty. One officer in cloudy weather will class the same sugar differently from his colleague, who will examine it in sunshine. Two parcels of the same quality will be taxed 16s. in London, and 13s. 10d. in Liverpool. This happens frequently. What is remarkable is, that the better the sugar, the greater the uncertainty, the doubt, the error, and the contradiction of the classification." "The example of France ought to inspire the Government with confidence, and enlighten it in this respect. Need we mention that the refineries of Paris, Havre, Nantes, Bordeaux, and Marseilles, are in full prosperity under a legislature which divides sugar into two classes only. The Committee go still further, and think that the British refiner himself would gain by a change in accordance with the system adopted in France; at the present time he cannot procure the raw material so cheap as the French refiner, as the latter purchases in this colony the finest sugars, which pay 16s. duty in England, at the same price as the British refiner pays for inferior quality which pays 13s. 10d. in England." The sugars which Mauritius has sent to the International Exhibition will be a proof of the unfairness of the system, and will show that the duty excludes the best sugars, because they are the best, from the English market; and thus, besides being a premium on bad manipulation, is an obstacle to the improvements in machinery; for what is really the use of improvement when the improved article becomes a disadvantage to the employer of the improvement? What Lord Mansfield long ago said of the Insurance laws, applies equally well to the differential sugar duties. 'The property and daily negotiations of merchants ought not to depend upon subtleties and niceties, but upon rules easily learned and easily retained.'

Mauritius does not ask for any protection—for any favour; it simply asks that the principles of free trade should be carried out; that an illogical tariff should be modified, not abolished. It asks for the establishment of a fixed rate of duty at the lowest scale consistent with the interests of the revenue, to be charged on all sugars alike. It is not so much the duty that is vexatious, but the want of uniformity. The revenue might possibly be affected in the single year in which this alteration might be made, but it would undoubtedly be augmented for ever afterwards. The axiom of political economy operates here; reduced duties increase consumption—the collateral branches of revenue prove this; but sugar-history proves it better than any other item of taxation. In 1789 the duty on British Plantation was 12s. 4d. per cwt., and on East Indian, £37 16s. 3d. *ad valorem*; the consumption declined from 81,000 tons to 77,355 tons. In 1790 the duty on British Plantation was raised to 15s., and the consumption fell to 76,811 tons; in 1791 to 70,160 tons; and in 1792 to 68,000 tons. In 1797, when 17s. 6d. duty per cwt. was imposed on British Plantation, and East Indian was taxed with an additional 5s. 2d. per cwt.; consumption at once fell to 63,000 tons, less by 10,000 tons than it had been twenty years before. So for every increase of duty there follows a diminished consumption. To pass from the old to more recent periods—in 1844,

with high duties, the consumption per head was 17lbs.; in 1858, with reduced duties, the consumption per head was 35½lbs. The revenue increased in proportion, and the comfort of the sugar-consuming population was equally augmented. I do not think then that Mauritius requires too much in asking for an equalisation of, and a diminution in, these sugar duties which press upon and impede the expansion of her staple industry. In a year with a Free-trade Ministry in power, and with a Chancellor of the Exchequer who has done more than any statesman to philosophise our Budgets, and to make figures eloquent with a science they never had before, and who has inaugurated an extensive and paying Treaty of Commerce with France; it is not too much for Mauritius to ask that so illogical and so vexatious a system as that of differential duties should be modified and reduced. I trust the Society of Arts will pardon the introduction of such a topic; but to speak of Mauritius, and its commercial history without speaking of these differential duties, appeared to me an abnormal manner of finishing this very meagre and imperfect sketch of an interesting portion of the British Empire. The colonies now are no longer what they were; whether the semi-abandonment theory of the Oxford Professor of History, Mr. Goldwin Smith, be advocated, or whether the wiser views of the Canadian Association, or those of the Duke of Newcastle, so eloquently expressed at the anniversary dinner of the formation of the Australian empire be adopted, certain it is that by her colonies the surpassing greatness of England has been developed, and her mighty power consolidated, that the decay of her population has been checked, and the unity of the nation and the nation's language have been diffused; whether we regard them as dependencies, in the sense of affiliations, or as colonies, in the radical meaning of the term, implying "workers and co-operators" with ourselves, let us regard them as the old Latin races regarded their colonies, with care and affectionate protection, and they will be to us what Cicero emphatically calls them, the *propugnacula imperii*, the bulwarks of an empire whose flag floats over colonial possessions of a magnitude undreamt of by the most ambitious of Greek or Roman conquerors.

It was my intention to have spoken of the dependencies of Mauritius, as the Seychelles, Rodrigues, &c., but I have, I am afraid, too long occupied the attention of my audience. I may mention that these islands, amounting in the aggregate, to more than 50,000 acres, are as yet undeveloped. In all of them cotton would thrive well, and an unbounded supply could be obtained if such an industry could be established in them. But the Seychelles group is improving, though its distance from Mauritius is an impediment to its success. According to the last Blue Book, the population of these dependencies amounted to 8,001. The report of the Commissioners appointed by Mr. Governor Stevenson, to visit the smaller dependencies of Mauritius in 1859, has been added to the Blue Book or the colony, published in 1861.

DISCUSSION.

Mr. P. L. SIMMONDS said that the two islands of the Indian Ocean, Mauritius and Ceylon, stood out as exemplifications of the success resulting from an abundant supply of labour; and to them had been transferred much of the enterprise and capital formerly expended in the west on two of the most important staples—sugar and coffee. The progress of sugar cultivation in Mauritius was very striking, and notwithstanding the various crises and difficulties through which the island had passed, but for the oppressive differential duties on sugar to which reference had been so prominently made, it would have made still further progress in its direct trade with England. Owing to the classification of duties, the best of its sugars, those on which the greatest amount of skilful manipulation and careful manufacture had been

bestowed, were sent to the Australian Colonies, the Cape, and the Continent. The importance of the island of Mauritius would be better appreciated from the statement that in population it nearly equals New South Wales or Jamaica, and that its external commerce, imports and exports, exceeds in value $4\frac{1}{2}$ millions sterling, as much as that of the Cape, with its far greater extent of territory and large wool-trade. Unfortunately, in Mauritius, as in Barbados, attention was so exclusively directed to sugar production that little or no attention was given to the cultivation of bread stuffs, and hence the food supplies of rice, live stock, &c., for its large population had to be obtained elsewhere. Great quantities of cattle were obtained from Madagascar, and rice from the Bay of Bengal. With Madagascar, under the *régime* of the new king, it was probable that a trade might be opened up for many raw products which that large and little explored island could supply, as the King took an interest in commerce, and had even forwarded samples of products, through Mauritius, to the International Exhibition. The flourishing condition of the colony of Mauritius was evidenced by the large revenue now raised, which enabled it to apply the surplus to many useful public works, roads, railways, &c., and the revenue raised stood next to that of the Cape and Ceylon. With respect to the tenure of service-engagements, it did seem somewhat strange that an adjoining foreign colony should be allowed to obtain labourers on more favourable and extended periods of service than our own colonists; and the favourable treatment they received in Mauritius was evidenced by the large number who settled there, and the accumulation of their savings in the banks. Thus in 1859, 468 immigrants withdrew £10,151 from the savings bank on returning to India, an average of nearly £22 for each, a large individual sum for this class of labourers. If the dependencies of Mauritius, the Seychelles, were brought into more regular communication by steam service, cotton and very many useful products might be obtained from them, more labour might be thrown into them, and opportunities offered for the shipment of their staples. The Seychelles lay in the direct track of Mauritius and Aden, and ought not to be excluded from the steam service. It was also proposed to connect Natal with Mauritius by steam service, and this would complete the circle of communication by uniting the South African colonies in commerce and communication with it. The visit of her Majesty's steamer Lynx, with the Bishop of Mauritius, to the outlying distant dependencies, had resulted in an interesting official report of their condition and capabilities. There was one advantage attending the discussion of papers on our colonies like that read that evening; it diffused more correct information respecting their trade and resources, and made the public at home better acquainted with their value. This was the more important at the present time, when the subject of the cost of the colonies to the mother country, and their capabilities of meeting their own expenses without touching the revenue of the parent-state was being largely debated both in and out of Parliament. Mr. Morris, from his great local experience in the island, and his official connection with it, had been able to furnish a most interesting *résumé* of all its salient features, brought down, too, to the most recent date.

Rear-Admiral Sir EDWARD BELCHER would offer one or two remarks with regard to the fortification of Mauritius. Mr. Morris had rather thrown out the idea that they ought not to expend money on the fortification of that island. He (Sir E. Belcher) was entirely of that opinion, as it would be a thorough waste, except for the purposes for which these fortifications were originally designed, viz. to repress the slave population in the event of insurrection. The island itself required no fortification, being protected from external attack by the coral reefs around it, so that it was impossible for any descent to be made by an enemy upon the coast, unless it were done through the regular channel of navigation, which was narrow and difficult, and could easily be defended by a ship of war—

one of our iron frigates—and this would be cheaper than expending large sums of money upon the shore fortifications of the island. He entirely agreed with all that had been stated in the paper. He should be happy to see some portion of the land now used for cane, and where the borer was committing such havoc, devoted to cotton cultivation. The locality in which that insect made the greatest ravages was on the line where the sea breeze blew upon the canes. Wherever there was a strong breeze, particularly from the sea, upon the sugar canes, there the borer and other insects injured the canes very much, and there also cotton would thrive better than the cane. Some allusion had been made to the Seychelles. He believed those islands would at no distant date form a valuable colony, and he should be glad to see the governor of Mauritius interesting himself in directing more attention to the cultivation of land there—or rather to the reduction of the cultivation of the cocoa nut, which was a great exhauster of the soil. A cocoa nut tree was considered to be worth five dollars a year, and so the owners let those trees stand upon ground which was capable of yielding more valuable produce—at least of more importance to this country. For instance, the land on which these trees grew might be converted into cotton plantations, but it would require labour to cultivate them. It was the want of a supply of labour which prevented the Seychelles from advancing, and so long as indolent people cultivated the cocoa nut for the sake of its fruit, they could not look for any great advancement in those colonies.

The CHAIRMAN felt it was not his province to take up the time of the meeting by remarks of his own. He should like to have heard the opinions of other gentlemen who were intimate with the Mauritius of the present day. He knew it well forty years ago, but it was then a slave colony, and under very different circumstances to those which had been stated that evening. It was one of the most beautiful islands, as regarded climate and soil, that he was acquainted with, and what had been said with respect to the fortifications was correct. Any money spent in the fortification of the island—as that term was understood—would be thrown away. The natural fortifications by reefs and narrow channels were such that it was next to impossible for any hostile force to land with even a sloop of war in the neighbourhood. The Seychelles were an interesting small group of islands which had not hitherto contributed much to the commerce of this country, and with reference to what had fallen from Sir Edward Belcher, he (the Chairman) questioned whether they could induce the people to cut down the cocoa nut trees, which furnished them with meat, drink, and lodging, without the labour of cultivation. In a locality where men were satisfied if they could earn three half-pence or two-pence a day, they could not, under the present circumstances of those islands, expect that cotton cultivation, which involved a great deal of manual labour, would be promoted to any great extent. He would now take the opportunity of proposing a vote of thanks to Mr. Morris for his very able and interesting paper.

The vote of thanks having been passed,

Mr. MORRIS acknowledged the compliment paid to him, and remarked that the object of his paper was to bring before the notice of the British public a colony which, he was sorry to say, was not so well-known as it deserved to be; but the main point in the paper was to induce discussion upon a question which, to his mind, was of the highest importance—the differential duties. There was a great staple produce largely consumed in this country which was most injuriously affected by the operations of our fiscal tariffs. Mauritius did not so much want a reduction of the duties on sugar as an alteration of them. For instance, he had shown that the duty upon this article, which was so largely consumed in this country, was made to be dependent almost entirely upon the result of examination by the Custom-house officer. A certain cargo of sugar was brought into port. It was very possible that the bags

underneath, although precisely the same quality of sugar as those on the top, might, by the pressure upon them, be altered in colour and in the character of the crystallisation, and they would be taxed with a lower duty, whereas the upper bags would be taxed with a higher duty, although they were precisely the same class of sugar. The planters thought it very hard, after the large sums of money they had expended in providing the most improved machinery, that they should be subjected to this capricious system of duties. He would say, without fear of contradiction, that no colony, in proportion to its extent, had expended so much money as the Mauritius, in introducing the best mechanical appliances for the manufacture of sugar, and hence the present system of taxation pressed very heavily and unfairly upon them, because it created a monopoly in favour of the British refiner, for this reason—that he could buy the unrefined sugar at a low rate, whereas, if the cultivators were foolish enough to refine it in the colony, they would have to pay a very heavy duty upon its introduction into our markets. The consequence was, that all classes of manufactured sugars were shut out of the English markets, so that the great bulk of manufactured sugar from the Mauritius found its way to France and Australia, where the tariffs were more favourable. With regard to the fortification of the island, the gentleman who had addressed them on that subject (Sir Edward Belcher) had somewhat misunderstood the purport of his remarks: his paper certainly went to show that Mauritius need not be fortified so as to be capable of resisting the artillery of the present day, for that would be an absurdity. It was also true that the island was defended by natural barriers of rocks and coral reefs, but what he argued was that Mauritius was peculiarly situated, more particularly as this country had given up the Isle of Bourbon, which was only about 100 miles from Mauritius. At the present moment, also, there was another great country coming into the theatre of events, viz., Madagascar. We were led to believe that an alliance would be made between England and Madagascar, and it would be necessary that a sufficient force should be kept somewhere at hand, so as to be prepared for any emergency. We had seen the necessity for preparation against emergency in the late anticipated rupture with America, but owing to the greater distance of Mauritius, we could hardly sent a garrison out with sufficient rapidity, and, therefore, one ought to be maintained there. To go back only to the early part of the present century, our merchant ships were subject to the attacks of hostile cruisers before England could do anything to prevent it, and rich cargoes were despoiled by the ships of the enemy, and this might occur again. His object was to show that Mr. Adelerley and others were wrong in saying that £15,000, spent in the fortification of Mauritius, ought to be considered as money thrown away. He (Mr. Morris) contended that anything which showed to the minds of the colonists that they were not overlooked or neglected by the mother country, would not be money ill-spent; and, under those circumstances, he differed from the gallant gentleman who had spoken on this subject. With regard to the Seychelles, they were situated some considerable distance from Mauritius, and the inter-communication between the islands was by sailing vessels; but if steam communication were established, he believed cotton cultivation would be more profitable than that of the cocoa nut. The production of oil had been increasing in those colonies, and he saw by a publication of the Cotton Supply Association of Manchester that during the last year 6,720 cwt. of cotton had been received from Mauritius, whilst from the Cape and Natal only about 5,000 cwt. had been received, which showed that the cotton industry was advancing in the island. In the other islands where the cocoa nut plantations were not of sufficient extent to produce oil in remunerative quantity for export, cotton would grow splendidly, because the cotton plant required the sea breezes, and in all these islands the sea breezes were at hand, and cotton would grow to great perfection and of fine quality. It was

no use to think of making these islands sugar colonies, because they were at too great a distance from Mauritius, which was the centre of manufacture. He would therefore suggest that the cotton cultivation might be more successfully prosecuted. With regard to the borer, which made the sugar crop of the last year so deficient in the Mauritius, he could only say, if any gentleman could give information as to the best means of extirpating that ruinous insect, he would not only be conferring a particular favour upon himself personally, but upon the colony at large, and upon the whole sugar-consuming community of England. The insect appeared to be gaining ground, and no remedy hitherto resorted to had been effectual, and the consequences to be apprehended were, that a splendid colony was in danger of being brought to ruin by its ravages.

The Secretary announced that on Wednesday evening next, the 19th inst., a paper by Mr. Robert Rawlinson, C.E., "On the Sewerage of Towns," would be read.

Home Correspondence.

THE TURKISH BATH.

SIR,—I have read with very great pleasure the learned paper of Mr. Urquhart on the Turkish bath, published in the *Journal of the Society of Arts*, and I can bear testimony to the general exactness of his description.

But in regard to the practice observed in the Moorish baths, I may add that women do not make use of soap for cleaning their hair; they substitute for this purpose a soapy stone, called *t'ofel*, dissolved in water. This stone is also employed for washing cloths with gold embroidery upon them. It is probably a species of magnesian salt, or rather an argillaceous stone containing magnesian salt, and is brought to Algiers from the South.

As to the influence of the Turkish and Moorish baths on health, I may say that the French residents in Algeria generally make very little use of this kind of bath, because they find it weakening. Nevertheless, I myself think that they will not produce this effect if persevered in for a considerable time.

The dirtiness of the Moorish baths, and particularly of the natives that are met with in them, contribute much to produce aversion on the part of Europeans.

I am, &c.,
PAUL MADRINIER,
Directeur des Annales d'Agriculture des Colonies.

Paris, March 3, 1862.

THE SILK TRADE AT FLORENCE.

DEAR SIR,—During my visit to Italy in November last, as one of the deputation to report on the Italian Exhibition of 1861, held at Florence, I became acquainted with one of the jurors in the silk department, M. Leopold Maffei, who has justly attained to considerable eminence as an authority on all that concerns that important native industry.

Since my return he has kindly furnished me with some materials for the paper I am announced to read on the 30th of April, which I could not obtain on the spot, amongst which I find a manuscript notice by himself of the former and present condition of the silk trade in Florence specially. Although my friend probably intended that I should incorporate it in my forthcoming report, or rather paper, it contains so much that is really original and interesting, that I think his reputation would be best consulted by the article itself, in all its integrity, appearing in our *Journal*. I therefore enclose a rather free translation of it for that purpose.

I am the more induced to take this course with it by the consideration that I could not, consistently with my

views, indorse all the political and economical speculations in which he indulges, though I might safely subscribe to some of them. Besides which, as they apply only to the comparatively small, though otherwise important, city of Florence as the capital of Tuscany, and as the silks exhibited there last autumn were from all parts of Italy, it would be to give them a prominence to which I hardly think them entitled.

You will observe that M. Maffei points to a mode of special support, viz., association, which, as applied to manufactures, our experience does not encourage, and which sound principles of political economy would altogether discountenance and repudiate, if to be at all protected by exclusive privileges. He has also sent me, in the shape of a pamphlet, in Italian, the prospectus of a Company which he and others propose to establish. When I have had time to digest its provisions, I will send you an epitome of them, as a fitting corollary to the foregoing suggestion. We shall then be able to judge how far it is, if at all, removed from schemes on which Adam Smith and Michel Chevalier would place their ban, and whether there is anything in the present condition of Tuscany that would justify the introduction of an exceptional commercial policy, should my friend's proposal, on examination, deserve to be so designated.

I fear that what M. Maffei, in the plenitude of his zeal for commercial progress in Tuscany, calls "microscopic institutions of credit," really are so, as compared with those of this country. I have had occasion to make some inquiries on this subject, and the result confirms my apprehension. The establishment, therefore, of banks, if possible on the limited principle, would go far to supply this desideratum; and when the new kingdom of Italy shall be sufficiently consolidated to encourage the introduction of British capital, I cannot doubt that the commerce of that country will be largely and safely developed. Of all this there are already many symptoms "looming in the distance;" and I look forward with confidence to the period when the ancient mercantile renown of Italy shall be restored to it, assisted, as manufacturers must previously be, by all those facilities which modern scientific discoveries and appliances will have placed at their disposal.

I am, &c.,

THOS. WINKWORTH.

Gresham Club, March 11, 1862.

The following is Monsieur Maffei's paper:—

Although the data with which tradition and history furnish us are incomplete, and often contradictory, I do not think I shall be far from the truth if I calculate that of spinners, winders, mill boys and girls, dyers, designers, warpers, fly-drivers, foremen, draw-boys, factory clerks, and many others, the number of individuals of both sexes, youths and adults, who lived comfortably upon this industry in the good days of "l'Arte della Seta" (the silk trade), that is to say, from the 13th to the 15th century, was rather above than below 30,000. I say, "who lived comfortably," because a skilful and active weaver, aided by an apprentice, could earn from $1\frac{1}{2}$ to $1\frac{3}{4}$ fr. per day net wages, after making a weekly allowance to his assistant. It is, however, a fact that almost up to the end of the 18th century (although this art had lost at the latter period much of its former importance and renown) the families of those of comparatively the lowest order, whose wives were employed in weaving, had the principal room of their small, but very cleanly abode abundantly furnished with brass utensils, their sack of wheat flour at the side of their kneading-trough, and 20 crowns in the drawer to provide against the expenses of sickness or of funerals. Hence on fête days, weavers and their daughters might be seen adorned with jewellery, pearls, and rubies, and their sons and husbands with two watches each, and great silver buckles on their small-clothes and shoes. But now, alas, when walking on Sundays or fête days, in the districts inhabited by silk weavers, formerly so clean and cheerful,

we find them dirty and squalid, and no longer regaling the senses with the odour of fowls or of lamb cooking.

At that time, although the art had greatly declined, as I have already observed, the factories of Florence kept in action, almost without any interruption, 5,000 to 6,000 looms to provide for domestic consumption, and to supply the demands of the Levant, of Holland, of Germany (including Vienna), of Russia, through the medium of Königsberg, and of Brazil from the ports of Genoa and Lisbon.

But when the fierce wars provoked by the French Revolution were lighted up, the looms which supported so large a portion of our population were suddenly completely stopped, and this plunged Tuscany, and especially the classes more directly connected with this noble industry, into the greatest distress.

The price of silk having fallen to 24 francs per kilogramme, and that of cocoons to 1f. 50c. per kilogramme, whilst that of wheat had risen to 50 francs the sack (of 55 or 60 kilogrammes) so blinded the landed proprietors as to impel them to cut down and uproot, with a Vandal-like fury, a large portion of the mulberry trees, under the specious and strange pretence that their shade was injurious to the growth of the wheat and other grain. The weavers also broke up and burnt their looms and utensils (which they regarded as useless encumbrances) with such insensate rage, that it could only be by a sort of miracle if any escaped destruction. The proprietors of factories failed one after another, so that the period which elapsed between 1799 and 1814 was one of almost complete annihilation as regards the silk trade of Florence. During this disastrous period, however, the house of Moretti Guitini, of which I was manager, was able to amass a colossal fortune by speculating on a future, which, however delayed, could not fail to arrive in due time; and that of Mateoni also was able to lay the foundation of its fortune by turning to profit the famous and barbarous decrees of Berlin and Milan.

The wars which had deluged Europe with blood having ceased in 1814 with the empire of the First Napoleon, our struggling industry of silk weaving found itself opposed to a much more serious and formidable competition than that which it had experienced prior to the French Revolution, because, in the first place, the French prisoners who remained in Germany and Russia, having there taught the art of silk-weaving to the natives, it resulted that those empires not only were no longer obliged to have recourse to Florence for silk goods, but could, on the contrary, supply us with those especially which were manufactured in Prussia, Belgium and Austria; and in the second place, because the ingenious machine invented by Jacquard, superseding the ancient slow process of cards and draw-boys, had brought about a radical revolution in the art of manufacturing figured silks, from which the French necessarily profited almost exclusively for some time, M. Jacquard having obtained a patent for his invention, while the protective laws which France continued to retain prevented or rendered it very difficult for foreigners to profit by it. Under these circumstances the manufacture of figured silks became an almost absolute monopoly to the French manufacturers. Independently of all these impediments the commercial treaties entered into between England, France, and the States of South America deprived Florence of important commissions from the Brazils, and she could, for the future, reckon only on domestic consumption and on the outlet of the Levant, but was confined in both cases to plain silks, France having, by means of the Jacquard loom, attracted to herself the manufacture of all the fancy silk trade which the luxury of both worlds could require of European industry.

This state of collapse was aggravated by the necessity, which the immoderate destruction of mulberry-trees imposed upon the manufacturers of Florence, of purchasing raw silk, which was of so inferior a quality as to be almost

unsaleable elsewhere, and of throwing it into organzine and tram at their superannuated mills of the thirteenth century. All this announced that Tuscany was on the eve of losing for ever the industry which had so much contributed to render the Republic of Florence rich, famous, and powerful. The Government of that day did not seem at all concerned; and the complaints of the suffering classes, and of some zealous citizens, were stifled by the preponderating voices and sophistries of the adulators who surrounded the throne, and of the wealthy, who had succeeded in monopolising the remains of our commerce and of our struggling trade, and would have desired that this state of things should last for ever.

Fortunately everything has its time here below, and at length the three Tuscans, Zauli de Modigliana, Scoti de Pescia, and Maffei, of Florence (the writer), after having visited and studied the principal and most famous European establishments employed in the culture of silk, conceived (with the conviction that nothing is difficult to him who truly and strongly wills to do it), the bold design of elevating from their profound depression in this country the two branches of this noble industry. Notwithstanding, therefore, the anathemas of the jealous and the envious, and the persecutions of the retrograde, and of all those whose interest it was to oppose every reform, the two first named succeeded, after incredible efforts and sacrifices, in obtaining from our cocoons silks which eclipsed all those known up to that time in the Peninsula, and which were worthy to be ranked amongst the most beautiful in the ultramontane markets; while the last of this triumvirate, who occupied himself with weaving, succeeded, by the aid of a complete assortment of machines and utensils purchased in France, in producing silk goods of such beauty and perfection as successfully to compete with those of Lyons. As evidence of this success he obtained the first prize in the Florence exhibitions, and, what was still more valuable, the flattering eulogiums of the foreign press, as well as the offer of honorary membership on the part of the French Academy of Agriculture, Manufactures, and Commerce. The credit he had thus acquired enabled him to form such intimate relations with the consumers of North America, as sufficed to support almost exclusively, from 1819 to 1844, the silk manufacture of Florence, and to increase his looms in action to the respectable extent of more than 4,000, with the prospect of soon being able to double this number.

But the evil genius which had delighted for more than three years in transferring to a ruinous extent our most noble and important industry to foreigners, succeeded, in 1844, not only in suddenly and unexpectedly arresting its progressive advance, but in causing it to lose in the ten following years much more than it had acquired in the previous thirty.

Zauli and Scoti, to whom the gratitude of their country should have decreed statues during their lives, having died prematurely, poor and neglected; and the loss of more than a million and a half of francs, or £60,000, incurred in speculations in American cotton, having caused the failure of the house of Guerber Gonin, to which belonged the capital which supported and sustained my flourishing establishments, the closing of the latter became indispensable. Thus the unfortunate industry of silk weaving again fell under the exclusive direction of manufacturers who were ignorant, timid, or retrograde. It could not but recede, as we have seen, to such a point as to be unable to keep in action even the half of the 2,000 looms which remained at work up to that time.

We may get some idea of the immense injury, both material and moral, which the country suffers through the decadence of this trade. Considering the special privileges which the provinces of Central Italy enjoy, they possess the elements necessary to manufacture silk goods to the extent of at least one-half of the 3,500,000 kilogrammes, and perhaps more, of the splendid silk which the peninsula of Italy sells raw, or simply thrown into organzines and trams, to foreigners. This would at once

chase from these countries the idleness, misery, and vice arising from poverty, and would enrich the country by at least 45,000,000*fr.* per annum (£1,800,000), a source of revenue which would be by no means contemptible in our present financial position, but to which we cannot aspire until the time when the spirit of association shall be re-awakened, and our microscopic institutions of credit are replaced by banks, the funds at whose disposal shall harmonise with the wants of our commerce and manufactures.

MEETINGS FOR THE ENSUING WEEK.

- MON.**.....British Architects, 8.
Medical, 8½.
Royal United Service Inst., 8½. Capt. C. Pasley, R.E.,
"The War in New Zealand."
- TUES.**...Civil Engineers, 8.
Statistical, 8. 1. Mr. W. G. Lumley, "Observations on the Statistics of Illegitimacy." 2. Dr. Mouatt, "Prison Statistics and Discipline in Lower Bengal."
Pathological, 8.
Ethnological, 8. 1. Mr. Wm. Bollaert, F.R.G.S., "On the Ancient Indian Tombs of Chiriqui in Veragua, on the Isthmus of Darien." 2. Mr. C. Carter Blake, "Note on the Stone Celts from Chiriqui."
Royal Inst., 3. Mr. John Marshall, "On the Physiology of the Senses."
- WED.**...Meteorological, 7.
Society of Arts, 8. Mr. Robt. Rawlinson, C.E., "On the Sewerage of Towns."
Geological, 8. 1. Prof. R. Harkness, F.R.S., "On the Permian Beds of Westmoreland, Cumberland, and Dumfriesshire." 2. Mr. A. Geikie, "On the Data of the last Elevation of Central Scotland."
- THURS.**...Royal, 8½.
Antiquaries, 8½.
Linnean, 8. Mr. George Busk, F.R.S., "Observations on some Skulls from Ceylon."
Chemical, 8. Mr. A. H. Church, "On the Isolation of Phenyl."
Numismatic, 7.
Royal Society Club, 6.
Royal Inst., 3. Professor Tyndall, "On Heat."
- FRI.**.....Royal Inst., 8. Mr. F. A. Abel, F.R.S., "On some of the Causes, Effects, and Military Applications of Explosions."
Royal Horticultural Soc., 2.
Royal United Service Inst., 3. Major Strange, "Geodesy, especially relating to the great Trigonometrical Survey of India."
- SAT.**.....Royal Inst., 3. Mr. Henry F. Chorley, "On National Music."
Asiatic, 3.
Royal Botanic, 3½.

PARLIAMENTARY REPORTS.

SESSIONAL PRINTED PAPERS.

- Par Numb.** *Delivered on 20th February, 1862.*
6. Court of Session and Sheriff Courts (Scotland)—Return.
13. Scottish Universities—(Paper).
47. Bank of England—Annual Accounts.
48. Bank of England—Copy of Applications for Advances to Government.
49. Scottish Universities—Copy of an Ordinance.
51. Committee of Selection—First Report.
44. Navy (Ships)—Account.
30. Railway and Canal Bills—General Report of the Board of Trade.
- Delivered on 21st February, 1862.*
21. Irish Reproductive Loan Fund—Account.
37. Flogging (Army and Militia)—Return.
40. Mint—Account.
3. Corporal Punishment—Return.
- Delivered on 22nd and 24th February, 1862.*
12. Metropolitan Board of Works—Account.
34. East India (Oude Claims)—Return.
43. Trade and Navigation Accounts (31st December, 1861).
45. Navy (Steam and Sailing Ships)—Return.
57. Railway and Canal Bills—First Report from Committee.
27. Naval Receipt and Expenditure—Account.
59. Committee of Selection—Second Report.
4. Bills—Poor Relief (Ireland) (Mr. Hennessy).
Japan—Correspondence.
Shipping—Reports from Her Majesty's Consuls.

SESSION 1861.

- 324 (Aix.). Poor Rates and Pauperism—Return (A.)
Delivered on 25th February, 1862.
50. Army Estimates for 1862-63.
17. Bills—Trade Marks.
11. „ Marriages (Ireland).

Delivered on 26th February, 1862.

38. Army (Commissions)—Return.
46. Flogging (Navy)—Return.
53. East India (Native Merchant Claims)—Papers.

PATENT LAW AMENDMENT ACT.

APPLICATIONS FOR PATENTS AND PROTECTION ALLOWED.

[*From Gazette, March 7th, 1862.*]

Dated 29th October, 1861.

2702. J. Watt, 35, Lorrimer-street, Walworth, and T. S. Haviside, 69, Cornhill—Imp. in the manufacture of soap.

Dated 17th January, 1862.

126. B. Moss, Liverpool—The application of steatite, either alone or in combination with other substances, to the manufacture of bricks, fire bricks, the lining of furnaces, and other similar purposes.

Dated 11th February, 1862.

356. W. Wood, Monkhill, Pontefract—Imp. in the process of manufacturing pomfret or liquorice cakes.

Dated 13th February, 1862.

384. T. Davison, Belfast—Improved means for preventing the cor-
roding of steam boilers.

Dated 15th February, 1862.

403. T. Renison, Glasgow—Imp. in water closets.
404. J. H. Johnson, 47, Lincoln's-inn-fields—Imp. in electro-magnetic timekeepers. (A com.)
407. J. Wall and T. Dodd, Liverpool—Imp. in the construction and arrangement of apparatus for regulating the flow or passage of fluids.
409. T. Horsley, 10, Coney-street, York—Imp. in apparatus for turning and closing the cartridges of breech-loading fire-arms.
410. J. Cooke, Willington, Durham—Imp. in the method of propelling ships and other vessels.
411. D. D. Kyle, Victoria-street, Westminster—An improved method of communicating or signalling in and with railways trains.
413. J. Chatterton, Highbury, and W. Smith, Dalston—Imp. in telegraph cables.
417. J. Russell, Westbury-villa, Camberwell—Imp. in the method of raising sunken, submerged, or stranded vessels.

Dated 17th February, 1862.

419. H. Crawford, J. Crawford, R. Crawford, and R. Templeton, Belth, Ayr, N.B.—Imp. in looms for weaving.
421. J. Whitaker, Leigh, Lancashire—Imp. in machinery or apparatus for pulping roots.
422. J. J. Van den Berg, Hague—A new fire lighter.
425. J. Combe, Belfast—Imp. in machinery for winding cops, and in the treatment of cops for warps and other purposes.

Dated 18th February, 1862.

427. J. H. Hastings, J. Freezer, Holkham, and J. Woods, jun., Wells, Norfolk—Imp. in ploughs.
428. R. Watkins, 14, Lower Belgrave-place, Pimlico—Imp. in oil and spirit lamps, and in the means of producing light therein, parts of which improvements are applicable to lamps generally.
431. W. Clark, 53, Chancery-lane—Imp. in gas apparatus used in lighting cigars and other tobacco. (A com.)
432. M. Henry, 84, Fleet-street—Imp. in cartridges. (A com.)
433. W. Bush, Tower-hill—Imp. in omnibuses and other carriages.

Dated 21st February, 1862.

460. R. H. Skellern, South-terrace, Hatcham-park—An improved self-inking hand stamp or press.
462. J. Standish, and J. Gooden, Egerton, near Bolton—Imp. in machinery or apparatus for stripping or cleaning the flats of carding engines.

Dated 22nd February, 1862.

470. W. Ashton, Manchester—Certain imp. in machinery or apparatus employed in the manufacture of braids and similar articles.
472. J. Kirkwood, Paisley—Imp. in looms for weaving.
474. J. Millington, Oaken Gates, Shropshire—A new or improved hearse or bier.
476. C. H. J. W. M. Liebmann, Huddersfield—Imp. in felted fabrics suitable for carpets and other similar purposes, and in the apparatus employed therein.
480. G. Blakey, S. Blakey, and J. Blakey, Liverpool, and B. White, Birkenhead—Imp. in leggings or gaiters.
484. M. A. F. Mennons, 39, Rue de l'Echiquier, Paris—Imp. in burners for heating by gas. (A com.)

Dated 24th February, 1862.

486. G. West, 1, Chapel-place, Long-lane, Borough—Imp. in the construction of washing machines.
490. T. Blair, Carlisle—Imp. in machinery or apparatus for cutting, chopping, and breaking refined lump sugar and other substances.
492. T. N. Kirkham, West Brompton, and V. F. Ensom, Highgate—Imp. in bleaching and dyeing yarn and thread when in the form of cops or otherwise wound.

498. W. E. Newton, 66, Chancery-lane—Imp. in the joints or chairs of the permanent ways of railways. (A com.)

Dated 25th February, 1862.

500. J. Woodrow, Oldham—A certain imp. in the manufacture of hats or coverings for the head.
502. J. Fiddington, 52, Gracechurch-street—An improved machine for shelling or husking all kinds of grain. (A com.)
504. E. Bliss, 36, Percival-street, Clerkenwell, and H. Lamplough, 113, Holborn-hill—Improved means for viewing microscopic photographs and other minute objects.

Dated 26th February, 1862.

518. G. Davies, 1, Serle-street, Lincoln's-inn—Imp. in emptying or draining the water from careening docks in maritime ports. (A com.)
520. A. D. Duparet, Paris—Imp. in the ornamentation of tissues.
522. J. H. Bennett, Blackburn—Imp. in steam generators, and in engines to be worked by atmospheric pressure or steam and air combined.
524. J. Cliff, Lambeth—Imp. in glazing stoneware, red clayware, porcelain, and other kinds of earthenware.
526. C. L. Knoll, 187, Tottenham Court-road—Imp. in pianofortes.
528. E. G. Bruzard, Pembroke-road, Kensington—Imp. in pianofortes.
530. J. Medhurst, 53, Lower Queen-street, Rotherhithe—Imp. in apparatus for reefing and furling the top sails, courses, and other square sails of vessels.

Dated 27th January, 1862.

532. G. Torr, Bucks-row, Whitechapel—Imp. in and an improved apparatus for manufacturing and reburning animal charcoal.
534. C. Clark, 361, City-road—Imp. in tea and other trays for the table.
538. Sir C. T. Bright, Victoria-street, Westminster—Imp. in electric telegraphs, and in apparatus connected therewith, and employed in the manufacture thereof.
542. W. S. Wood, Leeds—Imp. in valves for regulating the flow of steam, water, or other fluids, and in means or apparatus for working or actuating them direct from the governor, or when worked by expansion cams in connection therewith.

INVENTION WITH COMPLETE SPECIFICATION FILED.

573. P. Rémond, 39, Rue de l'Echiquier, Paris—Imp. in double rein
bridle bits.—3rd March, 1862.

PATENTS SEALED.

[*From Gazette, March 7th, 1862.*]

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|------------------------------------------|---------------------------------|
| <i>March 7th.</i> | 2289. W. Wheatstone. |
| 2245. G. Malcolm. | 2340. W. Clark. |
| 2248. P. B. O'Neill. | 2344. J. Graham. |
| 2257. J. Smith. | 2441. P. A. F. Bobœuf. |
| 2260. W. L. Thomas. | 2475. P. Knowles. |
| 2274. W. H. Delamare. | 2803. B. Dobson and J. Clough. |
| 2276. R. Smith, B. Brooks, and J. Smith. | 3188. J. Smith and J. B. Higgs. |
| 2280. T. L. Murray. | 3260. W. Tongue. |
| 2288. R. Waller. | 3262. W. Tongue. |

[*From Gazette, March 11th, 1862.*]

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| <i>March 11th.</i> | 2308. W. Stewart. |
| 2264. W. Steevens. | 2310. R. A. Brooman. |
| 2272. W. Davis. | 2313. W. Tuxford. |
| 2273. W. Farlar. | 2345. S. Hawksworth. |
| 2279. R. A. Brooman. | 2389. J. Musgrave. |
| 2282. C. Sutton. | 2466. T. Warwick. |
| 2283. H. Dixon and J. R. Renner. | 2520. G. Davies. |
| 2285. G. Dixon. | 2800. W. A. Shepard. |
| 2292. F. Barnett. | 2974. D. Ker. |
| 2303. J. Reeves. | 2997. H. Wilde. |
| 2304. T. Meriton. | 3208. W. M. Williams. |

PATENTS ON WHICH THE STAMP DUTY OF £50 HAS BEEN PAID.

[*From Gazette, March 7th, 1862.*]

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| <i>March 4th.</i> | 601. A. Booth and A. Booth. |
| 580. J. Leigh. | 642. A. Tylor. |
| 584. W. P. Savage. | |

[*From Gazette, March 11th, 1862.*]

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| <i>March 6th.</i> | 643. T. Lightfoot. |
| 598. J. P. Clarke. | 670. H. Bessemer. |
| 647. T. Patstone. | |
| <i>March 7th.</i> | <i>March 8th.</i> |
| 610. J. A. Williams. | 655. J. Dixon and R. Clayton. |

PATENTS ON WHICH THE STAMP DUTY OF £100 HAS BEEN PAID.

[*From Gazette, March 7th, 1862.*]

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|----------------------------------------|--------------------|
| <i>March 5th.</i> | |
| 605. W. Weild. | |
| <i>From Gazette, March 11th, 1862.</i> | |
| <i>March 7th.</i> | 538. S. C. Lister. |
| 504. J. Cooper. | 618. W. Smith. |